COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

NORTHERN REGIONAL OFFICE
13901 Crown Court, Woodbridge, Virginia 22193-1453
(703) 583-3800 Fax (703) 583-3821
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

Thomas A. Faha
Regional Director

June 10, 2016

Mr. Bryan Donnelley
Facility Manager
Covanta Alexandria/Arlington, Inc.
5301 Eisenhower Avenue
Alexandria, Virginia 22304

Location: City of Alexandria
Registration No.: 71895

Dear Mr. Donnelley:

Attached is a permit to operate a municipal solid waste combustion facility pursuant to 9 VAC 5 Chapter 80, Article 1, of the Virginia Regulations for the Control and Abatement of Air Pollution. This permit incorporates provisions from the Prevention of Significant Deterioration (PSD) permit dated September 27, 2010, and the minor New Source Review (NSR) permit dated September 27, 2010.

The permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and civil penalty. Please read all permit conditions carefully.

In evaluating the application and arriving at a final decision to issue this permit, the Department deemed the application complete on July 23, 2015 and solicited written public comments by placing a newspaper advertisement in *The Washington Times* newspaper on May 5, 2016. The thirty-day comment period (provided for in 9 VAC 5-80-270) expired on June 6, 2016.

This permit approval shall not relieve Covanta Alexandria/Arlington, Inc. of the responsibility to comply with all other local, state and federal permit regulations.

Issuance of this permit is a case decision. The Regulations, at 9 VAC 5-170-200, provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this permit is mailed or delivered to you. Please consult this and other relevant provisions for additional requirements for such requests. Additionally, as provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually

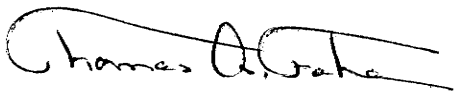
received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal to court by filing a Notice of Appeal with:

David K. Paylor, Director
Department of Environmental Quality
P.O. Box 1105
Richmond, Virginia 23218

In the event that you receive this permit by mail, three days are added to the period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia, at http://www.courts.state.va.us/courts/scv/rules.html, for additional information including filing dates and the required content of the Notice of Appeal.

If you have any questions concerning this permit, please contact the regional office at (703) 583-3800.

Sincerely,



Thomas A. Faha
Regional Director

Attachment: Permit

c: Director, OAPP (electronic file submission)
Manager, Data Analysis (electronic file submission)
Chief, Permits and Technical Assessment Branch (3AP11), U.S. EPA, Region III

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Federal Operating Permit
Article 1

Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Covanta Alexandria/Arlington, Inc
Facility Name:	Covanta Alexandria/Arlington, Inc
Facility Location:	5301 Eisenhower Ave. Alexandria, Virginia 22304
Registration Number:	71895

Permit Number	Effective Date	Expiration Date
NRO 71895	June 10, 2016	June 9, 2021

Thomas A. Faha
Regional Director

June 10, 2016
Signature Date

Permit consists of 62 pages.
Permit Conditions 1 to 218.
Appendix A
Table of Contents consists of 1 page.

Table of Contents

Facility Information

Permittee
Covanta Alexandria/Arlington, Inc.
5301 Eisenhower Ave.
Alexandria, VA 22304

Responsible Official
Bryan Donnelly
Facility Manager
(703) 370-7722

Facility
Covanta Alexandria/Arlington, Inc.
5301 Eisenhower Ave.
Alexandria, VA 22304

Contact Person
Bryan Donnelly
Facility Manager
(703) 370-7722

County-Plant Identification Number: 51-080-0139

Facility Description:
SIC Code 4953 – Municipal solid waste combustion primarily for non-hazardous waste volume reduction. The facility has three 325 ton per day furnaces capable of processing up to 975 tons of solid waste per day. Each unit is a waterwall furnace with reverse reciprocating grates and ash handling system. Steam and electricity are produced as a result of the combustion process. The facility generates up to 23 MW (net) of electrical power that is sold to the electric grid.

The primary air emission source is the three-flue stack serving the solid waste incinerators. The air pollutants include nitrogen oxides, sulfur dioxide, carbon monoxide, particulate matter, metals, volatile organic compounds, acid gases, dioxins/furans and sulfuric acid mist. Air pollution control equipment/techniques include flue gas scrubbers (sulfur dioxide, acid gases), fabric filter baghouses (particulate matter, metals, other precipitate), selective non-catalytic reduction (nitrogen oxides) and carbon injection (mercury).

Particulate matter emissions are also generated from the storage silos for pebble lime, dolomitic lime and carbon (materials used in the aforementioned air pollution control devices), and flyash handling.

Emission Units

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Municipal Waste Combustor Equipment							
001-01	001	Faber Combustion Unit Model # unknown (Construction Date Feb. 1988)	51.65 million Btu/hr (Fuel Oil)	---	---	---	PSD Permit dated September 27, 2010; Minor NSR Permit dated September 27, 2010
001-02	001	Keeler/Dorr-Oliver municipal waste combustor with Martin stokers Model # MK 325 (Construction Date Feb. 1988)	121.8 million Btu/hr (MSW - based on a higher heating value of 4500 Btu/lb for MSW)	Asea, Brown Boveri (ABB) Environmental Systems fabric filter Model # 266-14 ABB Environmental Systems spray tower absorber (Field Constructed) Activated Carbon Injection System (Field Constructed) Covanta designed Aqueous Ammonia Furnace Injection, (Field Constructed)	01 02 03 13	Particulate Matter and Lead Sulfur Dioxide, Hydrogen Chloride, Hydrogen Fluoride, Mercury, Nitrogen Oxides (as NO_2)	PSD Permit dated September 27, 2010; Minor NSR Permit dated September 27, 2010

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
002-01	002	Faber Combustion Unit Model # unknown (Construction Date Feb. 1988)	51.65 million Btu/hr (Fuel Oil)	---	---	---	PSD Permit dated September 27, 2010; Minor NSR Permit dated September 27, 2010
002-02	002	Keeler/Dorr-Oliver municipal waste combustor with Martin stokers Model # MK 325 (Construction Date Feb. 1988)	121.8 million Btu/hr (MSW - based on a higher heating value of 4500 Btu/lb for MSW)	Asea, Brown Boveri (ABB) Environmental Systems fabric filter Model # 266-14 ABB Environmental Systems spray tower absorber (Field Constructed) Activated Carbon Injection System (Field Constructed) Covanta designed Aqueous Ammonia Furnace Injection (Field Constructed)	05 06 07 14	Particulate Matter and Lead Sulfur Dioxide, Hydrogen chloride, Hydrogen fluoride, Mercury, Nitrogen Oxides (as NO_2)	PSD Permit dated September 27, 2010; Minor NSR Permit dated September 27, 2010
003-01	003	Faber Combustion Unit Model # unknown (Construction Date Feb. 1988)	51.65 million Btu/hr (Fuel Oil)	---	---		PSD Permit dated September 27, 2010; Minor NSR Permit dated September 27, 2010

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
003-02	003	Keeler/Dorr-Oliver municipal waste combustor with Martin stokers Model # MK 325 (Construction Date Feb. 1988)	121.8 million Btu/hr (MSW - based on a higher heating value of 4500 Btu/lb for MSW)	Asea, Brown Boveri (ABB) Environmental Systems fabric filter Model # 266-14 ABB Environmental Systems spray tower absorber (Field Constructed) Activated Carbon Injection System (Field Constructed) Covanta designed Aqueous Ammonia Furnace Injection (Field Constructed)	09 10 11 15	Particulate Matter and Lead Sulfur Dioxide, Hydrogen chloride, Hydrogen fluoride, Mercury and Nitrogen Oxides (as NO_2)	PSD Permit dated September 27, 2010; Minor NSR Permit dated September 27, 2010
Emergency Generator							
008-01	008	Emergency Diesel Generator (Construction Date Mar. 1986)	355 BHP, 230 kW	-	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Storage Silos							
004-01	004	Carbon Silo Storage Silo with pneumatic transfer of material (Construction Date Aug. 1993)	2010 ft^3/hr	Fabric Filter	16	Particulate Matter	PSD Permit dated September 27, 2010; Minor NSR Permit dated September 27, 2010
005-01	005	Lime Silo Storage Silo with transfer of lime slurry (Construction Date Jun. 1999)	2548 ft^3/hr	Fabric Filter	17	Particulate Matter	PSD Permit dated September 27, 2010; Minor NSR Permit dated September 27, 2010
007-01	007	Dolomitic Lime Silo Storage Silo with pneumatic transfer of material (Construction Date Dec. 2003)	973 ft^3/hr	Fabric Filter	18	Particulate Matter	Minor NSR permit dated September 27, 2010
Storage Tanks							
006-01	006	Underground Storage Tank for fuel oil (Construction Date Nov. 1998)	20,000 gallons	---	---	---	---

* The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement

Municipal Waste Combustor (MWC) Equipment– (001-01, 001-02, 002-01, 002-02, 003-01 and 003-02)

1. **Limitations** – Particulate matter emissions from the municipal waste combustors shall be controlled by the use of fabric filters.
(9 VAC 5-80-110, Condition 4 of 09/27/10 PSD Permit, and Condition 2 of 09/27/10 minor NSR Permit)

2. **Limitations** – Municipal Solid Waste (MSW) shall be defined as:

   a. Acceptable municipal solid waste includes household waste, commercial/retail waste, institutional waste, and other waste with emission characteristics similar to the acceptable wastes as determined by the permittee and approved by the Regional Air Permit Manager of the DEQ's Northern Regional Office (NRO), or a combination thereof as defined in this condition.

   b. Household waste includes material discarded by single and multiple residential dwellings, hotels, motels, and other similar permanent or temporary housing establishments or facilities.

   c. Commercial/retail waste includes material discarded by stores, offices, restaurants, warehouses, non-manufacturing activities at industrial facilities, and other similar establishments or facilities. All commercial/retail waste shall be mixed with other approved fuels prior to charging to the combustor in order to prevent discreet loads from being charged to a boiler.

   d. Institutional waste includes material discarded by schools, non-medical waste discarded by hospitals, material discarded by non-manufacturing activities at prisons and government facilities, and material discarded by other similar establishments or facilities.

   e. Municipal solid waste does not include hazardous waste, as defined by federal and state waste regulations.

   f. In addition, municipal solid waste shall not include industrial process or manufacturing waste, used oil, sewage sludge, wood pallets, construction, renovation, and demolition wastes, medical waste, motor vehicles (including motor vehicle parts or vehicle fluff) unless approved via the approved Material Review Process (MRP).

   g. The permittee shall monitor the waste delivered to the facility to ensure that only MSW as defined herein is being processed by the facility.

   h. This definition of MSW may in the future be expanded to include additional waste types not identified in this condition. To facilitate any revision, the permittee shall submit requests in writing to the Regional Air Permit Manager of the DEQ's NRO. Information on waste composition and emissions characterizations shall be included with any submittal. The request and supporting information will be reviewed and

evaluated to determine new source review applicability. The permit will be revised in accordance with the procedures established in the appropriate permitting regulations in the Regulations for the Control and Abatement of Air Pollution.

i. Any waste not classified as hazardous waste, and not covered by the definition of MSW above, shall be reviewed in accordance with the approved MRP (see Appendix A).

(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 6 of 09/27/10 mNSR Permit)

3. **Limitations** – The approved fuels for the municipal waste combustors are municipal waste and No. 2 fuel oil. Covanta Alexandria/Arlington, Inc. shall not accept hazardous waste for use in the municipal waste combustor. A change in the fuels may require a permit to modify and operate.
(9 VAC 5-80-110 and Conditions 5 and 6 of 09/27/10 PSD Permit)

4. **Limitations** – Number 2 fuel oil shall be used as the primary fuel during start-up conditions.
(9 VAC 5-80-110 and Condition 5 of 09/27/10 PSD Permit)

5. **Limitations** – Each municipal waste combustor train design includes a No. 2 fuel oil burner for use in maintaining appropriate municipal waste combustor temperatures.
(9 VAC 5-80-110, 9 VAC 5-170-60 and Condition 8 of 09/27/10 PSD Permit)

6. **Limitations** – The No. 2 fuel oil shall meet the ASTM specification D396-98 for No. 2 fuel oil. The maximum sulfur content per shipment shall not exceed 0.5 weight percent.
(9 VAC 5-80-110 and Condition 6A of 09/27/10 PSD Permit)

7. **Limitations** – The approved fuels for the municipal waste combustors are municipal waste and No. 2 fuel oil. A change in the fuels may require a permit to modify and operate.
(9 VAC 5-80-110 and Condition 6 of 09/27/10 PSD Permit)

8. **Limitations** – Each of the municipal waste combustors shall not operate at a four-hour average steam load level greater than 110 percent of the maximum demonstrated municipal waste combustor unit load which is the maximum four hour arithmetic average unit load during four consecutive hours achieved during the most recent dioxin/furan test demonstrating compliance with the applicable limit for municipal waste combustor organics specified under 9 VAC 5-40-8040, except:

   a. During the annual dioxin/furan performance test and the two weeks preceding the annual dioxin/furan performance test, the limits on municipal waste combustor unit load and average mass carbon feed rate are not applicable.

   b. The municipal waste combustor unit load limit and/or the limit for average mass carbon feed rate may be waived in accordance with permission granted by the Board, for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

(9 VAC 5-80-110, 9 VAC 5-40-8120.A, 40 CFR 60.58b(m)(2)(ii) and Condition 15 of 09/27/10 PSD Permit)

9. **Limitations** – The annual steam production for the facility shall not exceed 1,170,400 tons on the basis of an average value of 3.34 pounds of steam produced per pound of MSW processed, calculated monthly as the sum of each consecutive 12 month period. (9 VAC 5-170-160, 9 VAC 5-80-110, Condition 14 of 09/27/10 PSD Permit, and Condition 7 of 09/27/10 minor NSR permit)

10. **Limitations** – Monthly steam production shall be calculated using the following equation:

    Tons of Steam Produced = (Total monthly pounds of MSW combusted** x 3.34 lbs steam/lb of MSW) ÷ 2000

    **MSW combusted shall be calculated monthly using the following formula:

    MSW combusted = Starting pit inventory + MSW Received – MSW Rejected – Ending pit inventory.

    (9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 8 of 09/27/10 minor NSR Permit)

11. **Limitations** – The four hour average temperature, measured at each particulate matter control device inlet, shall not exceed 17°C (30.6°F) above the maximum demonstrated particulate matter control device inlet temperature which is the highest four hour arithmetic average flue gas temperature measured at the particulate matter control device inlet during the most recent dioxin/furan test demonstrating compliance with the applicable limit for municipal waste combustor organics specified under 9 VAC 5-40-8040, except:

    a. During the annual dioxin/furan performance test and the two weeks preceding the annual dioxin/furan performance test, the particulate matter control device temperature limitations are not applicable.

    b. The particulate matter control device temperature limits may be waived, in accordance with permission granted by the Board, for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

    (9 VAC 5-80-110, 9 VAC 5-40-8120.B, and Condition 16 of 09/27/10 PSD Permit)

12. **Limitations** – The following standards apply to the emissions from each municipal waste combustor:

    a. Particulate Matter: 27 milligrams per dry standard cubic meter, corrected to seven percent oxygen.

    (9 VAC 5-80-110, 9 VAC 5-40-7970, and Condition 9 of 09/27/10 PSD Permit)

    b. Carbon Monoxide: 100 parts per million by volume, corrected to seven percent oxygen, dry basis, calculated as an arithmetic average (four hour block average). A four hour block average is defined as the average of all hourly emission concentrations when the affected facility is operating and combusting municipal solid waste measured over four hour periods of time from 12:00 midnight to 4 a.m., 4a.m. to 8 a.m., 8 a.m. to 12:00 noon, 12:00 noon to 4 p.m., 4p.m. to 8 p.m., and 8 p.m. to 12:00 midnight.

    (9 VAC 5-80-110, 9 VAC 5-40-7890, 9 VAC 5-40-7960.C, and Condition 9 of 09/27/10 PSD Permit)

    c. Sulfur Dioxide: 29 parts per million by volume or twenty-five percent of the potential sulfur dioxide emission concentration (seventy-five percent reduction by weight or volume), corrected to seven percent oxygen, dry basis, whichever is less stringent. Compliance with this standard is based on a twenty-four hour daily geometric mean. A twenty-four hour daily average is defined as either the arithmetic or geometric mean (as specified) of all hourly emission concentrations when the affected facility is operating and combusting municipal solid waste measured over a twenty-four hour period between 12:00 midnight and the following midnight.

    (9 VAC 5-80-110, 9 VAC 5-80-8020, and Condition 9 of 09/27/10 PSD Permit)

    d. Nitrogen Oxides: 205 parts per million by volume corrected to seven percent oxygen, dry basis, based on a twenty-four hour daily arithmetic average. A twenty-four hour daily average is defined as either the arithmetic or geometric mean (as specified) of all hourly emission concentrations when the affected facility is operating and combusting municipal solid waste measured over a twenty-four hour period between 12:00 midnight and the following midnight.

    (9 VAC 5-80-110, 9 VAC 5-80-8050, 9 VAC 5-40-7960.C, and Condition 9 of 09/27/10 PSD Permit)

    e. Hydrogen Chloride: 29 parts per million by volume or five percent of the potential hydrogen chloride emission concentration (ninety-five percent reduction by weight or volume), corrected to seven percent oxygen, dry basis, whichever is less stringent.

    (9 VAC 5-80-110, 9 VAC 5-80-8030, and Condition 9 of 09/27/10 PSD Permit)

f. Cadmium: 0.040 milligrams per dry standard cubic meter, corrected to seven percent oxygen.

(9 VAC 5-80-110, 9 VAC 5-40-7990, and Condition 9 of 09/27/10 PSD Permit)

g. Lead: 0.44 milligrams per dry standard cubic meter, corrected to seven percent oxygen.

(9 VAC 5-80-110, 9 VAC 5-40-8000, and Condition 9 of 09/27/10 PSD Permit)

h. Mercury: 0.080 milligrams per dry standard cubic meter or fifteen percent of the potential mercury emission concentration (eighty-five percent reduction by weight), corrected to seven percent oxygen, whichever is less stringent.

(9 VAC 5-80-110, 9 VAC 5-40-8010, and Condition 9 of 09/27/10 PSD Permit)

i. Dioxin/Furan: 30 nanograms per dry standard cubic meter, expressed as total mass dioxins/furans, corrected to seven percent oxygen.

(9 VAC 5-80-110, 9 VAC 5-40-8040, and Condition 9 of 09/27/10 PSD Permit)

13. **Limitations** – Emissions from the operation of each municipal waste combustor shall not exceed the limits specified below:

	lb/MMBtu	lbs/hr	tons/yr
Particulate Matter	0.07		12
Particulate Matter 10 (PM_{10})	0.07		12
Sulfur Dioxide	0.14***	16.6***	53
Volatile Organic Compounds	0.006		3.0
Nitrogen Oxides (as NO_2)	0.55		177
Carbon Monoxide	0.56*	68.5	48.5**
Municipal Waste Combustor Metals (measured as particulate matter and made up of the following:)	6.47×10^{-3}		3.42
Cadmium	2.7×10^{-4}		0.14
Lead	4.4×10^{-3}		2.32
Mercury	1.8×10^{-3}***		0.96
Municipal Waste Combustor Acid Gases (measured as the sum of SO_2 and HCl)	0.48***	58.3***	102
Hydrogen Chloride	0.34***		49

Municipal Waste Combustor Organics (measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans)	1.26×10^{-7}		6.7×10^{-5}
Total Dioxins and Furans	5.05×10^{-8}		2.7×10^{-5}
Beryllium	4.9×10^{-7}****	6.0×10^{-5}****	2.63×10^{-4}
Sulfuric Acid Mist	2.9×10^{-3}		1.54

*Maximum short-term carbon monoxide emission rate.

** Based on an average annual carbon monoxide emission rate of 0.096 lb/MMBtu, calculated monthly as the average of each consecutive twelve month period. Compliance for the consecutive twelve-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding eleven months.

***For HCl, SO_2 and mercury, compliance will be demonstrated on a short-term basis by meeting the lb/MMBtu and lbs/hr emission limits specified in this condition or by the percent removal requirements specified in Condition 12.

****Compliance with the Beryllium limits shall be determined during annual performance testing.

Except for the lb/MMBtu and lb/hr HCl, SO_2 and mercury emission limits, the lb/MMBtu, lbs/hr and tons/yr emission limits in this condition may not be an indicator of compliance with the emission concentration and percent removal standards contained in Condition 12. Annual emissions shall be calculated monthly as the sum of each consecutive twelve month period unless specified otherwise. Compliance for the consecutive twelve-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding eleven months.
(9 VAC 5-50-260, 9 VAC 5-50-270, 9 VAC 5-50-280, 9 VAC 5-50-180, 40 CFR 61.32(a), 9 VAC 5-80-110, Condition 10 of 09/27/10 PSD Permit, and Condition 10 of 09/27/10 minor NSR permit)

14. **Limitations** – Total emissions from the operation of the municipal waste combustor plant shall not exceed the limits specified below:

Particulate Matter	35.6 tons/yr
PM-10	35.6 tons/yr
Sulfur Dioxide	159 tons/yr
Nitrogen Oxides (as NO_2)	530 tons/yr
Carbon Monoxide	145.5 tons/yr**
Volatile Organic Compounds	9.1 tons/yr
Municipal Waste Combustor Metals (measured as particulate made up of the following:	10.27 tons/yr
Cadmium	0.43 tons/yr
Lead	6.96 tons/yr
Mercury	2.88 tons/yr
Municipal Waste Combustor Acid Gases (measured as the sum of SO_2 and HCl)	305 tons/yr
Hydrogen Chloride	146 tons/yr
Municipal Waste Combustor Organics Total Dioxins and Furans	8.1×10^{-5} tons/yr
Beryllium	7.89×10^{-4} tons/yr
Sulfuric Acid Mist (H_2SO_4)	4.62 tons/yr

** Based on an average annual carbon monoxide emission rate of 0.096 lb/MMBtu, calculated monthly as the average of each consecutive twelve month period.

The tons/yr emission limits may not be an indicator of compliance with the emission concentration standards contained in Condition 12. Annual emissions shall be calculated monthly as the sum of each consecutive twelve month period unless specified otherwise. (9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-50-270, 9 VAC 5-50-280, 9 VAC 5-50-180, Condition 11 of 09/27/10 PSD Permit, and Condition 11 of 09/27/10 minor NSR permit)

15. **Limitations** – Covanta Alexandria/Arlington shall not cause or permit to be discharged into the atmosphere from any affected facility any gases that exhibit greater than ten percent opacity (six-minute average).
(9 VAC 5-80-110, 9 VAC 5-40-8060, and Condition 12 of 09/27/10 PSD Permit)

16. **Limitations** – Standard for Fugitive Dust/Emissions:

    a. Covanta Alexandria/Arlington, Inc. shall not cause to be discharged to the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of five percent of the observation period (i.e., nine minutes per three hour period), as determined by Reference Method 22 observations as specified in 9 VAC 5-40-8140H except as provided in sections b. and c. of this condition.

    b. The emission limit specified in section a. of this condition shall not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the emission limit specified in section a. of this condition shall cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems.

    c. The provisions specified in section a. of this condition shall not apply during maintenance and repair of ash conveying systems.

    (9 VAC 5-80-110, 9 VAC 5-40-8070, and Condition 13 of 09/27/10 PSD Permit)

17. **Limitations** – The provisions for startup, shutdown, and malfunction in parts a. and b. of this permit condition apply. Test methods and procedures for determining compliance shall be performed as specified in 9 VAC 5-40-8140. The standards under this permit apply at all times except during periods of startup, shutdown, or malfunction. Duration of startup, shutdown, or malfunction periods are limited to three hours per occurrence except for the purpose of compliance with the carbon monoxide emission limits in 9 VAC 5-40-7980, if a loss of boiler water level control or a loss of combustion air control is determined to be a malfunction, the duration of the malfunction period is limited to fifteen hours per occurrence.

    a. The startup period commences when the municipal waste combustor unit begins the continuous burning of municipal solid waste and does not include any warm-up period when the municipal waste combustor unit is combusting fossil fuel or other non-municipal solid waste fuel, and no municipal solid waste is being fed to the combustor.

    b. Continuous burning is the continuous, semi-continuous, or batch feeding of municipal solid waste for purposes of waste disposal, energy production, or providing heat to the combustion system in preparation for waste disposal or energy production. The use of municipal solid waste solely to provide thermal protection of the grate or hearth during the startup period when municipal solid waste is being fed to the grate is not considered to be continuous burning.

    c. The selected parameters that define normal operation for the facility is when the dry inlet O_2 is less than or equal to sixteen percent, or steam flow is greater than or equal to 30,000 pounds per hour. If either of these conditions is not met, and CAA has ceased feeding MSW into the combustor, the combustor shall be considered shut down.

    (9 VAC 5-80-110, 9 VAC 5-40-8100.B and Condition 172 of 09/27/10 PSD Permit)

18. **Limitations** – Municipal waste combustor unit capacity shall be calculated based on twenty-four hours of operation at the maximum charging rate. The maximum charging rate shall be calculated based on the maximum design heat input capacity of the unit and a heating value of 10,500 kilojoules per kilogram (4,500 Btu/lb) for combustors firing municipal solid waste that is not refuse-derived fuel.
(9 VAC 5-80-110, 9 VAC 5-40-8100.C, and Condition 173 of 09/27/10 PSD Permit)

19. **Limitations** – Each chief facility operator and shift supervisor shall obtain and maintain one of the following:

    a. A current provisional operator training certification from the American Society of Mechanical Engineers (QRO-1-1994) in conjunction with licensing requirements of the Board for Waste Management Facility Operators as required by 18 VAC 155 Chapter 20 (18 VAC 155-20-10 et seq.); or

    b. A license from the Board for Waste Management Facility Operators as required by 18 VAC 155 Chapter 20 (18 VAC 18-20-10 et seq.).

    (9 VAC 5-80-110, 9 VAC 5-40-8130.A, and Condition 17 of 09/27/10 PSD Permit)

20. **Limitations** – Each chief facility operator and shift supervisor shall have:

    a. (Satisfactorily) Completed full certification exam with the American Society of Mechanical Engineers (QRO-1-1994) certification program in conjunction with the Board for Waste Management Facility Operators as required by 18 VAC 155 Chapter 20 (18 VAC 155-20-10 et seq.); or

    b. Obtained a license from the Board for Waste Management Facility Operators as required by 18 VAC 155 Chapter 20 (18 VAC 155-20-10 et seq.).

    (9 VAC 5-80-110, 9 VAC 5-40-8130.B, and Condition 18 of 09/27/10 PSD Permit)

21. **Limitations** - Covanta Alexandria/Arlington, Inc. shall not allow the municipal waste combustor facility to be operated at any time unless one of the following persons is on duty and at Covanta Alexandria/Arlington, Inc.: A fully certified chief facility operator or a fully certified shift supervisor. If one of the persons who is responsible for the proper operation of the facility and has a license from the Board for Waste Management Facility Operators in the correct classification must leave Covanta Alexandria/Arlington, Inc. during their operating shift, a provisionally certified control room operator who is onsite at Covanta Alexandria/Arlington, Inc. may fulfill the requirements of this condition.
(9 VAC 5-80-110, 9 VAC 5-40-8130.D, and Condition 20 of 09/27/10 PSD Permit)

22. **Limitations** – Covanta Alexandria/Arlington, Inc. shall not allow the municipal waste combustor facility to be operated at any time unless a person is on duty who is responsible for the proper operation of the facility and has a license from the Board for Waste Management Facility Operators in the correct classification.
(9 VAC 5-80-110, 9 VAC 5-40-8130.C, and Condition 19 of 09/27/10 PSD Permit)

23. **Limitations** – All chief facility operators, shift supervisors, and control room operators must (satisfactorily) complete the Virginia State Air Pollution Control Board Approved municipal waste combustor operator training course.
(9 VAC 5-80-110, 9 VAC 5-40-8130.E, and Condition 21 of 09/27/10 PSD Permit)

24. **Limitations** – Covanta Alexandria/Arlington, Inc. shall develop and update on a yearly basis a site-specific operating manual that shall, at a minimum, address the elements of municipal waste combustor unit operation specified in sections a. through l. of this condition:

    a. A summary of the applicable standards under this permit;

    b. A description of basic combustion theory applicable to a municipal waste combustor unit;

    c. Procedures for receiving, handling, and feeding municipal solid waste;

    d. Municipal waste combustor unit startup, shutdown, and malfunction procedures;

    e. Procedures for maintaining proper combustion air supply levels;

    f. Procedures for operating the municipal waste combustor unit within the standards established under this permit;

    g. Procedures for responding to periodic upset or off-specification conditions;

    h. Procedures for minimizing particulate matter carryover;

    i. Procedures for handling ash;

    j. Procedures for monitoring municipal waste combustor unit emissions;

    k. Reporting and recordkeeping procedures; and

    l. Approved Standby Emission Reduction Plan required under 9 VAC 5-70-50 for reducing nonattainment emissions during an Air Pollution Episode.

    The operations manual shall include a copy of this permit.
    (9 VAC 5-80-110, 9 VAC 5-40-8130.F, 9 VAC 5-170-160 and Conditions 22 and 23 of 09/27/10 PSD Permit)

25. **Limitations** – Covanta Alexandria/Arlington, Inc. shall establish a training program to review the operating manual according to the schedule specified in sections a. and b. of this condition with each person who has responsibilities affecting the operation of the facility including, but not limited to, chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers:

a. Each person shall undergo initial training no later than the date prior to the day the person assumes responsibilities affecting municipal waste combustor unit operation.

b. Each person shall repeat the initial training annually, within twelve months of the initial training required by section a. of this condition.

(9 VAC 5-80-110, 9 VAC 5-40-8130.G, and Condition 24 of 09/27/10 PSD Permit)

26. **Limitations** – The operating manual shall be kept in a readily accessible location for all persons required to undergo training. The operating manual and records of training shall be available for inspection by the Board upon request.
(9 VAC 5-80-110, 9 VAC 5-40-8130.H, and Condition 25 of 09/27/10 PSD Permit)

27. **Limitations** – The permittee shall comply with all the applicable requirements of 9 VAC 5-40-7950 et seq., 40 CFR 61 Subpart C; and the applicable general provisions of 40 CFR 60 and 61.
(9 VAC 5-80-110, 9 VAC 5-40-7950 et seq.; 40 CFR 61 Subpart C; Subpart A of 40 CFR Part 61, and Condition 9 of 09/27/10 minor NSR Permit)

28. **Limitations** – This is not a permit under the Resource Conservation and Recovery Act (RCRA). Questions on the applicability of RCRA can be directed to the Virginia Department of Environmental Quality – Waste Division.
(9 VAC 5-80-110, 9 VAC 5-170-160 and Condition 178 of 09/27/10 PSD Permit)

29. **Limitations** – Facility or Control Equipment Malfunction - Hazardous Air Pollutant Processes: The processes listed below shall, upon request of the DEQ, shut down immediately if its emissions increase in any amount because of a bypass, malfunction, shutdown or failure of the process or its associated air pollution control equipment. The processes shall not return to operation until it and the associated air pollution control equipment are able to operate in the proper manner:

    - Three MWC, each nominally rated at 121.8 million Btu per hour based on a higher heating value (HHV) of 4,500 Btu/lb for MSW.

(9 VAC 5-80-110, 9 VAC 5-20-180 F 3 and Condition 182 of 09/27/10 PSD Permit)

30. **Limitations** –The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.
(9 VAC 5-80-110, 9 VAC 5-20-180 I, Condition 183 of 09/27/10 PSD Permit, and Condition 22 of 09/27/10 minor NSR Permit)

31. **Monitoring** – The permittee will monitor the differential pressure drop across each fabric filter on an ongoing basis.
(9 VAC 5-80-110, 9 VAC 5-40-50 H, Condition 114 of 09/27/10 PSD Permit, and Condition 5 of 09/27/10 minor NSR Permit)

32. **Monitoring** – The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring system for opacity. For facilities combusting municipal-type solid waste, the span value for a continuous monitoring system for measuring opacity shall be between zero and thirty-five percent. The continuous opacity monitor will be used as an indicator of proper operation of the fabric filter. (9 VAC 5-80-110, 9 VAC 5-40-8150, and Conditions 114 and 115B of 09/27/10 PSD Permit)

33. **Monitoring** – Covanta Alexandria/Arlington, Inc. shall install, calibrate, maintain, and operate a continuous emission monitoring system and record the output of the system for measuring the oxygen or carbon dioxide content of the flue gas at each location where carbon monoxide, sulfur dioxide, or nitrogen oxides emissions are monitored and shall comply with the test procedures and test methods specified in sections a. through f. of this permit condition:

    a. The span value of the oxygen (or carbon dioxide) monitor shall be twenty-five percent oxygen (or carbon dioxide).

    b. All continuous emission monitors for oxygen or carbon dioxide shall be installed, evaluated, and operated in accordance with 40 CFR 60.13.

    c. All continuous emission monitors for oxygen and carbon dioxide shall conform to Performance Specification 3 in appendix B of 40 CFR 60 except for section 2.3 (relative accuracy requirement).

    d. The quality assurance procedures of appendix F of 40 CFR 60 except for section 5.1.1 (relative accuracy test audit) shall apply to the monitor.

    e. If carbon dioxide is selected for use in diluent corrections, the relationship between oxygen and carbon dioxide levels shall be established during the initial performance test according to the procedures and methods specified in sections i. through iv. of this permit condition. This relationship may be reestablished during performance compliance tests.

        i. The fuel factor equation in Reference Method 3B shall be used to determine the relationship between oxygen and carbon dioxide at a sampling location. Reference Method 3, 3A, or 3B, as applicable, shall be used to determine the oxygen concentration at the same location as the carbon dioxide monitor.
        ii. Samples shall be taken for at least thirty minutes in each hour.
        iii. Each sample shall represent a one hour average.
        iv. A minimum of three runs shall be performed.

    f. The relationship between carbon dioxide and oxygen concentrations that is established in accordance with section e. of this permit condition shall be submitted to the Board as part of the initial performance test report and, if applicable, as part of the annual test report if the relationship is reestablished during the annual performance test.

g. Whenever a continuous emissions monitor is malfunctioning or will be out of service for calibration, maintenance, or repair for a period of time corresponding to or exceeding the respective pollutant monitoring interval, surrogate compliance monitoring of the following parameters shall be implemented with the approval of the Regional Air Compliance Manager of the DEQ's NRO, until such time as the emissions monitor is back in operation:

   i. For sulfur dioxide outlet monitor, the permittee shall maintain slurry flow and fuel feed rate at the rate at which it was being fed prior to the malfunction or out of service period. Slurry feed rate and fuel feed rate shall be recorded no less than twice per hour.
   ii. For the nitrogen oxide monitor, the permittee shall maintain ammonia injection rate and fuel feed rate at the rate at which it was being fed prior to the malfunction or out of service period. Ammonia injection rate and fuel feed rate shall be recorded no less than twice per hour.
   iii. For the carbon monoxide monitor, the permittee shall maintain steam flow and fuel feed rate at the rate at which it was being produced/fed prior to the malfunction or out of service period. Steam flow rate and fuel feed rate shall be recorded no less than twice per hour.

(9 VAC 5-80-110, 9 VAC 5-40-8150.B, and Conditions 116 through 123 of 09/27/10 PSD Permit)

34. **Monitoring** – The procedures specified in Conditions 35 through 45 shall be used for determining compliance with the operating requirements under 9 VAC 5-40-8120. (9 VAC 5-80-110, 9 VAC 5-40-8150.C, and Condition 124 of 09/27/10 PSD Permit)

35. **Monitoring** – Covanta Alexandria/Arlington, Inc. shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring carbon monoxide at the combustor outlet and record the output of the system and shall follow the procedures and methods specified in sections a. through c. of this permit condition:

   a. The continuous emission monitoring system shall be operated according to Performance Specification 4A in appendix B of 40 CFR 60.

   b. During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 4A in appendix B of 40 CFR 60, carbon monoxide and oxygen (or carbon dioxide) data shall be collected concurrently (or within a thirty to sixty minute period) by both the continuous emission monitors and the test methods specified in sections i. and ii. of this permit condition.

      i. For carbon monoxide, Reference Method 10, 10A, or 10B shall be used.
      ii. For oxygen (or carbon dioxide), Reference Method 3, 3A, or 3B, as applicable, shall be used.

c. The span value of the continuous emission monitoring system shall be 125 percent of the maximum estimated hourly potential carbon monoxide emissions of the municipal waste combustor unit.

(9 VAC 5-80-110, 9 VAC 5-40-8150.C.3, and Condition 126 of 09/27/10 PSD Permit)

36. **Monitoring** – The four hour block arithmetic average specified in Condition 37 shall be calculated from one hour arithmetic averages expressed in parts per million by volume corrected to seven percent oxygen (dry basis). The one hour arithmetic averages shall be calculated using the data points generated by the continuous emission monitoring system. At least two data points shall be used to calculate each one hour arithmetic average.
(9 VAC 5-80-110, 9 VAC 5-40-8150.C.4, and Condition 127 of 09/27/10 PSD Permit)

37. **Monitoring** – Compliance with the carbon monoxide emission limits in 9 VAC 5-40-7980 shall be determined using a four hour block arithmetic average.
(9 VAC 5-80-110, 9 VAC 5-40-8150.C, and Condition 125 of 09/27/10 PSD Permit)

38. **Monitoring** – Covanta Alexandria/Arlington, Inc. may request that compliance with the carbon monoxide emission limit be determined using carbon dioxide measurements corrected to an equivalent of seven percent oxygen. The relationship between oxygen and carbon dioxide levels for Covanta Alexandria/Arlington, Inc. shall be established as specified in permit Condition 33.f.
(9 VAC 5-80-110, 9 VAC 5-40-8150.C.5 and Condition 128 of 09/27/10 PSD Permit)

39. **Monitoring** – The procedures specified in section a. through d. of this condition shall be used to determine compliance with load level requirements under 9 VAC 5-40-8120.A:

a. Covanta Alexandria/Arlington, Inc. with steam generation capability shall install, calibrate, maintain, and operate a steam flow meter or a feedwater flow meter; measure steam (or feedwater) flow in megagrams per hour (or kilopounds per hour) on a continuous basis; and record the output of the monitor. Steam (or feedwater) flow shall be calculated in four hour block arithmetic averages.

b. The method included in the "American Society of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1 -- 1964 (R1991)" section 4 shall be used for calculating the steam (or feedwater) flow required under section a. of this permit condition. The recommendations in "American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th edition (1971)," chapter 4 shall be followed for design, construction, installation, calibration, and use of nozzles and orifices except as specified in section c. of this permit condition.

c. Measurement devices such as flow nozzles and orifices are not required to be recalibrated after they are installed.

d. All signal conversion elements associated with steam (or feedwater flow) measurements must be calibrated according to the manufacturer's instructions before each dioxin/furan performance test, and at least once per year.

(9 VAC 5-80-110, 9 VAC 5-40-8150.C.6, and Condition 129 of 09/27/10 PSD Permit)

40. **Monitoring –** To determine compliance with the maximum particulate matter control device temperature requirements under 9 VAC 5-40-8120B, Covanta Alexandria/Arlington, Inc. shall install, calibrate, maintain, and operate a device for measuring on a continuous basis the temperature of the flue gas stream at the inlet to each particulate matter control device utilized by Covanta Alexandria/Arlington, Inc. Temperature shall be calculated in four hour block arithmetic averages.
(9 VAC 5-80-110, 9 VAC 5-40-8150.C.7, and Condition 130 of 09/27/10 PSD Permit)

41. **Monitoring** – The maximum demonstrated municipal waste combustor unit load shall be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in 9 VAC 5-40-8040 is achieved. The maximum demonstrated municipal waste combustor unit load shall be the highest four hour arithmetic average load achieved during four consecutive hours during the most recent test during which compliance with the dioxin/furan emission limit was achieved.
(9 VAC 5-80-110, 9 VAC 5-40-8150.C.8, and Condition 131 of 09/27/10 PSD Permit)

42. **Monitoring** – For each particulate matter control device employed at Covanta Alexandria/Arlington, Inc., the maximum demonstrated particulate matter control device temperature shall be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in 9 VAC 5-40-8040 is achieved. The maximum demonstrated particulate matter control device temperature shall be the highest four hour arithmetic average temperature achieved at the particulate matter control device inlet during four consecutive hours during the most recent test during which compliance with the dioxin/furan limit was achieved.
(9 VAC 5-80-110, 9 VAC 5-40-8150.C.9, and Condition 132 of 09/27/10 PSD Permit)

43. **Monitoring** – At a minimum, valid continuous emission monitoring system hourly averages shall be obtained as specified in sections a. and b. of this condition for seventy-five percent of the operating hours per day for ninety percent of the operating days per calendar quarter that Covanta Alexandria/Arlington, Inc. is combusting municipal solid waste:

a. At least two data points per hour shall be used to calculate each one hour arithmetic average.

b. At a minimum, each carbon monoxide one hour arithmetic average shall be corrected to seven percent oxygen on an hourly basis using the one hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.

(9 VAC 5-80-110, 9 VAC 5-40-8150.C.10, and Condition 133 of 09/27/10 PSD Permit)

44. **Monitoring** – All valid continuous emission monitoring system data must be used in calculating the parameters specified under this section even if the minimum data requirements of permit Condition 43 are not met. When carbon monoxide continuous emission data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by the board or Reference Method 10 to provide, as necessary, the minimum valid emission data.
(9 VAC 5-80-110, 9 VAC 5-40-8150.C.11, and Condition 134 of 09/27/10 PSD Permit)

45. **Monitoring** – Quarterly accuracy determinations and daily calibration drift tests for the carbon monoxide continuous emission monitoring system shall be performed in accordance with Procedure 1 in appendix F of 40 CFR 60.
(9 VAC 5-80-110, 9 VAC 5-40-8150.C.12, and Condition 135 of 09/27/10 PSD Permit)

46. **Recordkeeping** – Covanta Alexandria/Arlington, Inc. shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO. These records shall include, but are not limited to the information specified in permit Conditions 47 through 63 as applicable, for each affected facility. These records shall be on-site for inspection by the DEQ for a period of at least five years.
(9 VAC 5-80-110, 9 VAC 5-40-8160.B, 9 VAC 5-50-50, 9 VAC 5-40-50 and Condition 137 of 09/27/10 PSD Permit)

47. **Recordkeeping** - Covanta Alexandria/Arlington, Inc. shall maintain the calendar date of each record.
(9 VAC 5-80-110, 9 VAC 5-40-8160.B.1, and Condition 138 of 09/27/10 PSD Permit)

48. **Recordkeeping** – The emission concentrations and parameters measured using continuous monitoring systems as specified under this condition.

    a. The measurements specified in a(i) through a(iv) of this condition shall be recorded and be available for submittal to the Board or review onsite by an inspector.

        i. All six minute average opacity levels as specified under 9 VAC 5-40-8140.B.
        ii. All one hour average sulfur dioxide emission concentrations as specified under 9 VAC 5-40-8140.D.
        iii. All one hour average nitrogen oxides emission concentrations as specified under 9 VAC 5-40-8140.G.
        iv. All one hour average carbon monoxide emission concentrations, municipal waste combustor unit load measurements, and particulate matter control device inlet temperatures as specified under 9 VAC 5-40-8150.C.

b. The average concentrations and percent reductions, as applicable, specified in permit Conditions 48.b.(i) through 48.b.(iv) shall be computed and recorded, and shall be available for submittal to the Board or review on-site by an inspector.

   i. All twenty-four hour daily geometric average sulfur dioxide emission concentrations and all twenty-four hour daily geometric average percent reductions in sulfur dioxide emissions as specified under 9 VAC 5-40-8140D.
   ii. All twenty-four hour daily arithmetic average nitrogen oxides emission concentrations as specified under 9 VAC 5-40-8140G.
   iii. All four hour block or twenty-four hour daily arithmetic average carbon monoxide emission concentrations, as applicable, as specified under 9 VAC 5-40-8150C.
   iv. All four hour block arithmetic average municipal waste combustor unit load levels and particulate matter control device inlet temperatures as specified under 9 VAC 5-40-8150C.

(9 VAC 5-80-110, 9 VAC 5-40-8160.B.2, and Condition 139 of 09/27/10 PSD Permit)

49. **Recordkeeping** – Identification of the calendar dates when any of the average emission concentrations, percent reductions, or operating parameters recorded under b (i) through b (iv) of permit Condition 48, or the opacity levels recorded under a (i) of permit Condition 48 are above the applicable limits, with reasons for such exceedance(s) and a description of corrective actions taken.
(9 VAC 5-80-110, 9 VAC 5-40-8160.B.3, and Condition 140 of 09/27/10 PSD Permit)

50. **Recordkeeping** – For affected facilities that apply activated carbon for mercury control, the records specified in sections a. through d. of this condition:

   a. The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated as required under 9 VAC 5-40-8140.J.1.a during all annual performance tests for mercury emissions, with supporting calculations. The average carbon mass feed rate shall be based on the sampling requirements and duration as specified by USEPA Method 29 or approved equivalent.

   b. The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated for each hour of operation as required under 9 VAC 5-40-8140.J.3.b, with supporting calculations. The average carbon mass feed rate shall be based on the sampling requirements and duration as specified by USEPA Method 29 or approved equivalent.

   c. The total carbon usage for each calendar quarter estimated as specified by 9 VAC 5-40-8140.J.3, with supporting calculations.

   d. Carbon injection system operating parameter data for the parameter(s) that are the primary indicator(s) of carbon feed rate (e.g., gravimetric feeder).

(9 VAC 5-80-110, 9 VAC 5-40-8160.B.4, and Condition 141 of 09/27/10 PSD Permit)

51. **Recordkeeping** – Identification of the calendar dates for which the minimum number of hours of any of the data specified in sections a. through e. of this condition have not been obtained including reasons for not obtaining sufficient data and a description of corrective actions taken.

    a. Sulfur dioxide emissions data;

    b. Nitrogen oxides emissions data;

    c. Carbon monoxide emissions data;

    d. Municipal waste combustor unit load data; and

    e. Particulate matter control device temperature data.

    (9 VAC 5-80-110, 9 VAC 5-40-8160.B.5, and Condition 142 of 09/27/10 PSD Permit)

52. **Recordkeeping** – Identification of each occurrence that sulfur dioxide emissions data, nitrogen oxides emissions data, or operational data (i.e., carbon monoxide emissions, unit load, and particulate matter control device temperature) have been excluded from the calculation of average emission concentrations or parameters, and the reasons for excluding the data.
    (9 VAC 5-80-110, 9 VAC 5-40-8160.B.6, and Condition 143 of 09/27/10 PSD Permit)

53. **Recordkeeping** – The results of daily drift tests and quarterly accuracy determinations for sulfur dioxide, nitrogen oxides (large municipal waste combustors only), and carbon monoxide continuous emission monitoring systems, as required under appendix F of 40 CFR 60, procedure 1.
    (9 VAC 5-80-110, 9 VAC 5-40-8160.B.7, and Condition 144 of 09/27/10 PSD Permit)

54. **Recordkeeping** – The test reports documenting the results of all annual performance tests listed in sections a. and b. of this permit condition shall be recorded along with supporting calculations.

    a. The results of all annual performance tests conducted to determine compliance with the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, sulfuric acid mist, and fugitive ash emission limits.

    b. For all dioxin/furan performance tests recorded under section a. of this permit condition, the maximum demonstrated municipal waste combustor unit load, maximum mass carbon feed rate and maximum demonstrated particulate matter control device temperature (for each particulate matter control device).

    (9 VAC 5-80-110, 9 VAC 5-40-8160.B.8, and Condition 145 of 09/27/10 PSD Permit)

55. **Recordkeeping** – The records specified in sections a. through c. of this condition.

    a. Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been provisionally certified by the American Society of Mechanical Engineers or an equivalent Board-approved certification program as required by 9 VAC 5-40-8130A, including the dates of initial and renewal certifications and documentation of current certification.

    b. Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been fully certified by the American Society of Mechanical Engineers or an equivalent Board-approved certification program as required by 9 VAC 5-40-8130B, including the dates of initial and renewal certifications and documentation of current certification.

    c. Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have completed the EPA municipal waste combustor operator training course or a Board-approved equivalent course as required by 9 VAC 5-40-8130E, including documentation of training completion.

    (9 VAC 5-80-110, 9 VAC 5-40-8160.B.9, and Condition 146 of 09/27/10 PSD Permit)

56. **Recordkeeping** – The permittee shall keep records showing the names of persons who have completed a review of the operating manual as required by 9 VAC 5-40-8130G, including the date of the initial review and subsequent annual reviews.
    (9 VAC 5-80-110, 9 VAC 5-40-8160.B.10, and Condition 147 of 09/27/10 PSD Permit)

57. **Recordkeeping** – For affected facilities that apply activated carbon for mercury control, identification of the calendar dates when the average carbon mass feed rates recorded under permit Condition 50.b were less than the hourly carbon feed rates estimated during performance tests for mercury emissions and recorded under permit Condition 50.a., respectively, with reasons for such feed rates and a description of corrective actions taken.
    (9 VAC 5-80-110, 9 VAC 5-40-8160.B.11, and Condition 148 of 09/27/10 PSD Permit)

58. **Recordkeeping** – Since Covanta Alexandria/Arlington, Inc. applies activated carbon for mercury control, identification of the calendar dates when the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate (e.g. gravimetric feed rate) recorded under permit Condition 50.d are below the level(s) estimated during the performance tests as specified in 9 VAC 5-40-8140J.1 and 9 VAC 5-40-8140J.1.b, with reasons for such occurrences and a description of corrective actions taken.
    (9 VAC 5-80-110, 9 VAC 5-40-8160.B.12 and Condition 149 of 09/27/10 PSD Permit)

59. **Recordkeeping** – The permittee shall keep records showing the amount of No. 2 fuel oil used as auxiliary fuel in each of the municipal waste combustors (001-01, 002-01 and 003-01).
    (9 VAC 5-80-110 and Condition 150 of 09/27/10 PSD Permit)

60. **Recordkeeping** – All records specified under permit Conditions 46 through 58 shall be maintained onsite in either paper copy or computer-readable format, unless an alternative format is approved by the Board.
(9 VAC 5-80-110, 9 VAC 5-40-8160.H, and Condition 168 of 09/27/10 PSD Permit)

61. **Recordkeeping** – The continuous emission monitor system records shall be annotated to identify the municipal waste combustor train, dates, light-off and securing times, and average firing rates.
(9 VAC 5-80-110, 9 VAC 5-50-50 and Condition 151 of 09/27/10 PSD Permit)

62. **Recordkeeping** – The permittee shall maintain records of the occurrence and duration of any startup, shutdown or malfunction in the operation of the municipal waste combustors; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
(9 VAC 5-80-110, 40 CFR 60.7(b) and 9 VAC 5-40-50 B)

63. **Recordkeeping** – The records specified in sections a through d of this condition:

    a. All scale house receipts documenting incoming MSW deliveries and outgoing MSW that has been rejected.

    b. A log of daily pit inventory estimations for each bay (Bays 1 – 5).

    c. Annual steam production using the calculation method in Condition 10 to verify compliance with the ton/yr limitation in Condition 9, calculated monthly as the sum of each consecutive twelve-month period. Compliance for the consecutive twelve-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding eleven months.

    d. A copy of the maintenance schedule and records of scheduled and unscheduled maintenance and operator training.

    (9 VAC 5-80-110, 9 VAC 5-80-1180, 9 VAC 5-50-50, and Condition 14 of 09/27/10 minor NSR Permit)

64. **Testing** – The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. This includes constructing the facility such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and providing stack or duct that is free from cyclonic flow. Test ports shall be provided when requested in accordance with the applicable performance specification (reference 40 CFR Part 60, Appendix B).
(9 VAC 5-80-110, 9 VAC 5-50-30F and Condition 177 of 09/27/10 PSD Permit)

65. **Testing** – If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9 VAC 5-80-110)

66. **Testing** – *Particulate Matter*: The procedures and test methods specified in Conditions 67 through 76 of this section shall be used to determine compliance with the emission limits for particulate matter and opacity in Conditions 12.a and 0.
(9 VAC 5-80-110, 9 VAC 5-40-8140.B, and Condition 28 of 09/27/10 PSD Permit)

67. **Testing** – *Particulate Matter*: Reference Method 1 shall be used to select sampling site and number of traverse points.
(9 VAC 5-80-110, 9 VAC 5-40-8140.B.1 and Condition 29 of 09/27/10 PSD Permit)

68. **Testing** – *Particulate Matter*: Reference Method 3, 3A, or 3B, as applicable, shall be used for gas analysis.
(9 VAC 5-80-110, 9 VAC 5-40-8140.B.2 and Condition 30 of 09/27/10 PSD Permit)

69. **Testing** – *Particulate Matter*: Reference Method 5 shall be used for determining compliance with the particulate matter emission limit contained in Condition 12.a. The minimum sample volume shall be 1.7 cubic meters. The probe and filter holder heating systems in the sample train shall be set to provide a gas temperature no greater than 160 °C +/- 14 °C. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Reference Method 5 run.
(9 VAC 5-80-110, 9 VAC 5-40-8140.B.3, and Condition 31 of 09/27/10 PSD Permit)

70. **Testing** – *Particulate Matter*: Covanta Alexandria/Arlington, Inc. may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of seven percent oxygen. The relationship between oxygen and carbon dioxide levels for Covanta Alexandria/Arlington, Inc. shall be established as specified in 9 VAC 5-40-8150.B.6.
(9 VAC 5-80-110, 9 VAC 5-40-8140B.4, and Condition 32 of 09/27/10 PSD Permit)

71. **Testing** – *Particulate Matter*: All performance tests shall consist of a minimum of three test runs. The average of the particulate matter emission concentrations from the three test runs, one of which shall include normal sootblowing operations, shall be used to determine compliance.
(9 VAC 5-80-110, 9 VAC 5-40-8140.B.5, 9 VAC 5-40-30E, 40 CFR 60.8 and Condition 33 of 09/27/10 PSD Permit)

72. **Testing** – *Particulate Matter*: The procedures and test methods specified in subsections a through d of this condition shall be used when conducting performance tests for particulate matter ($PM_{2.5}$ filterable and $PM_{2.5}$ condensable).

    a. The permittee shall conduct performance tests for particulate matter ($PM_{2.5}$ filterable and $PM_{2.5}$ condensable) from the MWC stacks using EPA Methods 1-5, OTM 027, and OTM 028, or other methods as approved by the DEQ.

b. Emissions testing of $PM_{2.5}$ shall consist of three one-hour test runs (or other length of time as required by the applicable test method). The average of the three runs shall be reported as the short-term emission rate for the facility.

c. Testing shall be conducted with the MWC operating at eighty percent or more of its maximum rated capacity.

d. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30.

(9 VAC 5-80-110, 9 VAC 5-80-1200, 9 VAC 5-50-30G, and Condition 12 of 09/27/10 minor NSR permit)

73. **Testing** – *Particulate Matter*: Following the date that the initial performance test for particulate matter is completed or is required to be completed under 9 VAC 5-40-8100, Covanta Alexandria/Arlington, Inc. shall conduct a performance test for particulate matter on an annual basis (no more than twelve calendar months following the previous performance test).
(9 VAC 5-80-110, 9 VAC 5-40-8140.B.9 and Condition 37 of 09/27/10 PSD Permit)

74. **Testing** – *Opacity*: In accordance with Condition 76, Reference Method 9 shall be used for determining compliance with the opacity limit except as provided in 40 CFR 60.11(e).
(9 VAC 5-80-110, 9 VAC 5-40-8140.B.6, and Condition 34 of 09/27/10 PSD Permit)

75. **Testing** – *Opacity*: Covanta Alexandria/Arlington, Inc. shall install, calibrate, maintain, and operate a continuous opacity monitoring system for measuring opacity and shall follow the methods and procedures specified in sections a. through c. of this condition.

a. The output of the continuous opacity monitoring system shall be recorded on a six minute average basis.

b. The continuous opacity monitoring system shall be installed, evaluated, and operated in accordance with 40 CFR 60.13 and 9 VAC 5-40-41.

c. The continuous opacity monitoring system shall conform to Performance Specification 1 in appendix B of 40 CFR 60.

(9 VAC 5-80-110, 9 VAC 5-40-8140.B.8, and Condition 36 of 09/27/10 PSD Permit)

76. **Testing** – *Opacity*: Following the date that the initial performance test for opacity is completed or is required to be completed under 9 VAC 5-40-8100, Covanta Alexandria/Arlington, Inc. shall conduct a performance test for opacity on an annual basis (no more than twelve calendar months following the previous performance test) using the test method specified in permit Condition 74.
(9 VAC 5-80-110, 9 VAC 5-40-8140.B.10, and Condition 38 of 09/27/10 PSD Permit)

77. **Testing** – *Cadmium and Lead*: The procedures and test methods specified in Conditions 78 through 83 of this permit shall be used to determine compliance with the emission limits for cadmium and lead in Condition 12.f and 12.g.
(9 VAC 5-80-110, 9 VAC 5-40-8140.C.1, and Condition 40 of 09/27/10 PSD Permit)

78. **Testing** – *Cadmium and Lead*: Reference Method 1 shall be used for determining the location and number of sampling points.
(9 VAC 5-80-110, 9 VAC 5-40-8140.C.1.a and Condition 41 of 09/27/10 PSD Permit)

79. **Testing** – *Cadmium and Lead*: Reference Method 3, 3A, or 3B, as applicable, shall be used for flue gas analysis.
(9 VAC 5-80-110, 9 VAC 5-40-8140.C.1.b, and Condition 42 of 09/27/10 PSD Permit)

80. **Testing** – *Cadmium and Lead*: Reference Method 29 shall be used for determining compliance with the cadmium and lead emission limits. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Reference Method 29 test run for cadmium and lead.
(9 VAC 5-80-110, 9 VAC 5-80-8140.C.1.c, 9 VAC 5-80-8140.C.1.d, and Conditions 43 and 44 of 09/27/10 PSD Permit)

81. **Testing** – *Cadmium and Lead*: Covanta Alexandria/Arlington, Inc. may request that compliance with the cadmium or lead emission limit be determined using carbon dioxide measurements corrected to an equivalent of seven percent oxygen. The relationship between oxygen and carbon dioxide levels for Covanta Alexandria/Arlington, Inc. shall be established as specified in 9 VAC 5-40-8150.B.6.
(9 VAC 5-80-110, 9 VAC 5-40-8140.C.1.e, and Condition 45 of 09/27/10 PSD Permit)

82. **Testing** – *Cadmium and Lead*: All performance tests shall consist of a minimum of three test runs conducted under representative full load operating conditions. The average of the cadmium or lead emission concentrations from three test runs or more shall be used to determine compliance for the respective pollutant.
(9 VAC 5-80-110, 9 VAC 5-40-8140.C.1.f, and Condition 46 of 09/27/10 PSD Permit)

83. **Testing** – *Cadmium and Lead*: Following the date of the initial performance test or the date on which the initial performance test is required to be completed under 9-VAC 5-40-8100, Covanta Alexandria/Arlington, Inc. shall conduct a performance test for compliance with the emission limits for cadmium and lead on an annual basis (no more than twelve calendar months following the previous performance test).
(9 VAC 5-80-110, 9 VAC 5-40-8140.C.1.g, and Condition 47 of 09/27/10 PSD Permit)

84. **Testing** – *Mercury*: The procedures and test methods specified in Conditions 85 through 93 shall be used to determine compliance with the mercury emission limit in Condition 12.h.
(9 VAC 5-80-110, 9 VAC 5-40-8140.C.2, and Condition 48 of 09/27/10 PSD Permit)

85. **Testing** – *Mercury*: Reference Method 1 shall be used for determining the location and number of sampling points.
(9 VAC 5-80-110, 9 VAC 5-40-8140.C.2.a, and Condition 49 of 09/27/10 PSD Permit)

86. **Testing** – *Mercury*: Reference Method 3, 3A, or 3B, as applicable, shall be used for flue gas analysis.
(9 VAC 5-80-110, 9 VAC 5-40-8140.C.2.b, and Condition 50 of 09/27/10 PSD Permit)

87. **Testing** – *Mercury*: Reference Method 29 shall be used to determine the mercury emission concentration. The minimum sample volume when using Reference Method 29 for mercury shall be 1.7 cubic meters.
(9 VAC 5-80-110, 9 VAC 5-40-8140.C.2.c, and Condition 51 of 09/27/10 PSD Permit)

88. **Testing** – *Mercury*: An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Reference Method 29 test run for mercury required under permit Condition 87.
(9 VAC 5-80-110, 9 VAC 5-40-8140.C.2.d, and Condition 52 of 09/27/10 PSD Permit)

89. **Testing** – *Mercury*: The percent reduction in the potential mercury emissions ($\%P_{Hg}$) is computed using the following equation:

$$(\%P_{Hg}) = \left(\frac{E_i - E_o}{E_i}\right) \times 100$$

where:

$\%P_{Hg}$ = percent reduction of the potential mercury emissions achieved.

E_i = potential mercury emission concentration measured at the control device inlet, corrected to seven percent oxygen (dry basis).

E_o = controlled mercury emission concentration measured at the mercury control device outlet, corrected to seven percent oxygen (dry basis).

(9 VAC 5-80-110, 9 VAC 5-40-8140.C.2.e, and Condition 53 of 09/27/10 PSD Permit)

90. **Testing** – *Mercury*: All performance tests shall consist of a minimum of three test runs conducted under representative full load operating conditions. The average of the mercury emission concentrations or percent reductions from three test runs or more is used to determine compliance.
(9 VAC 5-80-110, 9 VAC 5-80-8140.C.2.f, and Condition 54 of 09/27/10 PSD Permit)

91. **Testing** – *Mercury*: Covanta Alexandria/Arlington, Inc. may request that compliance with the mercury emission limit be determined using carbon dioxide measurements corrected to an equivalent of seven percent oxygen. The relationship between oxygen and carbon dioxide levels for Covanta Alexandria/Arlington, Inc. shall be established as specified in 9 VAC 5-40-8150.B.6.
(9 VAC 5-80-110, 9 VAC 5-40-8140.C.2.g, and Condition 55 of 09/27/10 PSD Permit)

92. **Testing** – *Mercury*: Following the date that the initial performance test for mercury is completed or is required to be completed under 9 VAC 5-40-8100, Covanta Alexandria/Arlington, Inc. shall conduct a performance test for mercury emissions on an annual basis (no more than twelve calendar months from the previous performance test).
(9 VAC 5-80-110, 9 VAC 5-40-8140.C.2.i and Condition 57 of 09/27/10 PSD Permit)

93. **Testing** – *Mercury*: Covanta Alexandria/Arlington, Inc., where activated carbon injection is used to comply with the mercury emission limit, shall follow the procedures specified in 9 VAC 5-40-8140 J for measuring and calculating carbon usage.
(9 VAC 5-80-110, 9 VAC 5-40-8140.C.2.j, and Condition 58 of 09/27/10 PSD Permit)

94. **Testing** – *Beryllium*: Reference Method 104 or 103 shall be used for determining compliance with the beryllium emission limits. All samples shall be taken over such a period or periods as are necessary to accurately determine the maximum emissions which will occur in any 24-hour period.
(9 VAC 5-80-110E and 40 CFR 61.33)

95. **Testing** – *Beryllium*: Covanta Alexandria/Arlington, Inc. shall conduct a performance test for compliance with the emission limits for beryllium on an annual basis (no more than twelve calendar months following the previous beryllium performance test).
(9 VAC 5-80-110E)

96. **Testing** – *Sulfur Dioxide*: The procedures and test methods specified in Conditions 97 through 108 shall be used for determining compliance with the sulfur dioxide emission limit in Condition 12.c.
(9 VAC 5-80-110, 9 VAC 5-40-8140.D, and Condition 59 of 09/27/10 PSD Permit)

97. **Testing** – *Sulfur Dioxide*: Reference Method 19, section 4.3, shall be used to calculate the daily geometric average sulfur dioxide emission concentration.
(9 VAC 5-80-110, 9 VAC 5-40-8140.D.1, and Condition 60 of 09/27/10 PSD Permit)

98. **Testing** – *Sulfur Dioxide*: Reference Method 19, section 5.4, shall be used to determine the daily geometric average percent reduction in the potential sulfur dioxide emission concentration.
(9 VAC 5-80-110, 9 VAC 5-40-8140.D.2, and Condition 61 of 09/27/10 PSD Permit)

99. **Testing** – *Sulfur Dioxide*: Covanta Alexandria/Arlington, Inc. may request that compliance with the sulfur dioxide emission limit be determined using carbon dioxide measurements corrected to an equivalent of seven percent oxygen. The relationship between oxygen and carbon dioxide levels for Covanta Alexandria/Arlington, Inc. shall be established as specified in 9 VAC 5-40-8150.B.6.
(9 VAC 5-80-110, 9 VAC 5-40-8140.D.3, and Condition 62 of 09/27/10 PSD Permit)

100. **Testing** – *Sulfur Dioxide*: Covanta Alexandria/Arlington, Inc. shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring sulfur dioxide emissions discharged to the atmosphere and record the output of the system.
(9 VAC 5-80-110, 9 VAC 5-40-8140.D.5, and Condition 64 of 09/27/10 PSD Permit)

101. **Testing** – *Sulfur Dioxide*: Following the date that the initial performance test for sulfur dioxide is completed or is required to be completed under 9 VAC 5-40-8100, compliance with the sulfur dioxide emission limit shall be determined based on the twenty-four hour daily geometric average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data if compliance is based on an emission concentration, or continuous emission monitoring system inlet and outlet data if compliance is based on a percent reduction.
(9 VAC 5-80-110, 9 VAC 5-40-8140.D.6, and Condition 65 of 09/27/10 PSD Permit)

102. **Testing** – *Sulfur Dioxide*: At a minimum, valid continuous monitoring system hourly averages shall be obtained as specified in sections a. and b. of this condition, for seventy-five percent of the operating hours per day for ninety percent of the operating days per calendar quarter that Covanta Alexandria/Arlington, Inc. is combusting municipal solid waste.

    a. At least two data points per hour shall be used to calculate each one hour arithmetic average.

    b. Each sulfur dioxide one hour arithmetic average shall be corrected to seven percent oxygen on an hourly basis using the one hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.

    (9 VAC 5-80-110, 9 VAC 5-40-8140.D.7, and Condition 66 of 09/27/10 PSD Permit)

103. **Testing** – *Sulfur Dioxide*: The one hour arithmetic averages required under permit Condition 101 shall be expressed in parts per million corrected to seven percent oxygen (dry basis) and used to calculate the twenty-four hour daily geometric average emission concentrations and daily geometric average emission percent reductions. The one hour arithmetic averages shall be calculated using the data points required in 40 CFR 60.13(e)(2).
(9 VAC 5-80-110, 9 VAC 5-40-8140.D.8, and Condition 67 of 09/27/10 PSD Permit)

104. **Testing** – *Sulfur Dioxide*: All valid continuous emission monitoring system data shall be used in calculating average emission concentrations and percent reductions even if the minimum continuous emission monitoring system data requirements of permit Condition 102 are not met.
(9 VAC 5-80-110, 9 VAC 5-40-8140.D.9, and Condition 68 of 09/27/10 PSD Permit)

105. **Testing** – *Sulfur Dioxide*: The procedures in 40 CFR 60.13 and 9 VAC 5-40-41.B.2 shall be followed for installation, evaluation, and operation of the continuous emission monitoring system.
(9 VAC 5-80-110, 9 VAC 5-40-8140.D.10, and Condition 69 of 09/27/10 PSD Permit)

106. **Testing** – *Sulfur Dioxide*: The continuous emission monitoring system shall be operated according to Performance Specification 2 in appendix B of 40 CFR 60.

    a. During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 2 in appendix B of 40 CFR 60, sulfur dioxide and oxygen (or carbon dioxide) data shall be collected concurrently (or within a thirty to sixty minute period) by both the continuous emission monitors and the test methods specified in sections a.(i) and a.(ii) of this permit condition.

        i. For sulfur dioxide, Reference Method 6, 6A, or 6C shall be used.
        ii. For oxygen (or carbon dioxide), Reference Method 3, 3A, or 3B, as applicable, shall be used.

    b. The span value of the continuous emissions monitoring system at the inlet to the sulfur dioxide control device shall be 125 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit. The span value of the continuous emission monitoring system at the outlet of the sulfur dioxide control device shall be fifty percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit.

    (9 VAC 5-80-110, 9 VAC 5-40-8140.D.12, and Condition 71 of 09/27/10 PSD Permit)

107. **Testing** – *Sulfur Dioxide*: Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 in appendix F of 40 CFR 60.
(9 VAC 5-80-110, 9 VAC 5-40-8140.D.13, and Condition 72 of 09/27/10 PSD Permit)

108. **Testing** – *Sulfur Dioxide*: When sulfur dioxide emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Board or Reference Method 19 to provide, as necessary, valid emissions data for a minimum of seventy-five percent of the hours per day that Covanta Alexandria/Arlington, Inc. is operated and combusting municipal solid waste for ninety percent of the days per calendar quarter that Covanta Alexandria/Arlington, Inc. is operated and combusting municipal solid waste.
(9 VAC 5-80-110, 9 VAC 5-40-8140.D.14, and Condition 73 of 09/27/10 PSD Permit)

109. **Testing** – *Hydrogen Chloride*: The procedures and test methods specified in Conditions 110 through 115 shall be used for determining compliance with the hydrogen chloride emission limit in Condition 12.e.
(9 VAC 5-80-110, 9 VAC 5-40-8140.E, and Condition 74 of 09/27/10 PSD Permit)

110. **Testing** – *Hydrogen Chloride*: Reference Method 26 or 26A, as applicable, shall be used to determine the hydrogen chloride emission concentration. The minimum sampling time for Reference Method 26 shall be one hour.
(9 VAC 5-80-110, 9 VAC 5-40-8140.E.1, and Condition 75 of 09/27/10 PSD Permit)

111. **Testing** – *Hydrogen Chloride*: An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Reference Method 26 test run for hydrogen chloride required by permit Condition 110.
(9 VAC 5-80-110, 9 VAC 5-40-8140.E.2, and Condition 76 of 09/27/10 PSD Permit)

112. **Testing** – *Hydrogen Chloride*: The percent reduction in potential hydrogen chloride emissions (% P_{HCl}) is computed using the following equation:

$$(\%P_{HCl}) = \left(\frac{E_i - E_o}{E_i}\right) \times 100$$

where:

$\%P_{HCl}$ = percent reduction of the potential hydrogen chloride emissions achieved.

E_i = potential hydrogen chloride emission concentration measured at the control device inlet, corrected to seven percent oxygen (dry basis).

E_O = controlled hydrogen chloride emission concentration measured at the control device outlet, corrected to seven percent oxygen (dry basis).

(9 VAC 5-80-110, 9 VAC 5-40-8140.E.3, and Condition 77 of 09/27/10 PSD Permit)

113. **Testing** – *Hydrogen Chloride*: Covanta Alexandria/Arlington, Inc. may request that compliance with the hydrogen chloride emission limit be determined using carbon dioxide measurements corrected to an equivalent of seven percent oxygen. The relationship between oxygen and carbon dioxide levels for Covanta Alexandria/Arlington, Inc. shall be established as specified in 9 VAC 5-40-8150.B.6.
(9 VAC 5-80-110, 9 VAC 5-40-8140.E.4, and Condition 78 of 09/27/10 PSD Permit)

114. **Testing** – *Hydrogen Chloride*: All performance tests shall consist of a minimum of three test runs. The average of the hydrogen chloride emission concentrations or percent reductions from the three test runs is used to determine compliance.
(9 VAC 5-80-110, 9 VAC 5-40-8140.E.5, 9 VAC 5-40-30, 40 CFR 60.8 and Condition 79 of 09/27/10 PSD Permit)

115. **Testing** – *Hydrogen Chloride*: Following the date that the initial performance test for hydrogen chloride is completed or is required to be completed under 40 CFR 60.8, Covanta Alexandria/Arlington, Inc. shall conduct a performance test for hydrogen chloride emissions on an annual basis (no more than twelve calendar months following the previous performance test).
(9 VAC 5-80-110, 9 VAC 5-40-8140.E.7, and Condition 81 of 09/27/10 PSD Permit)

116. **Testing** – *Dioxin/Furan*: The procedures and test methods specified in Conditions 117 through 123 shall be used to determine compliance with the limits for dioxin/furan emissions in Condition 12.i.
(9 VAC 5-80-110, 9 VAC 5-40-8140.F, and Condition 82 of 09/27/10 PSD Permit)

117. **Testing** – *Dioxin/Furan*: Reference Method 1 shall be used for determining the location and number of sampling points.
(9 VAC 5-80-110, 9 VAC 5-40-8140.F.1, and Condition 83 of 09/27/10 PSD Permit)

118. **Testing** – *Dioxin/Furan*: Reference Method 3, 3A, or 3B, as applicable, shall be used for flue gas analysis.
(9 VAC 5-80-110, 9 VAC 5-40-8140.F.2, and Condition 84 of 09/27/10 PSD Permit)

119. **Testing** – *Dioxin/Furan*: Reference Method 23 shall be used for determining the dioxin/furan emission concentration.

    a. The minimum sample time shall be four hours per test run.

    b. An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Reference Method 23 test run for dioxins/furans.

    (9 VAC 5-80-110, 9 VAC 5-40-8140.F.3, and Condition 85 of 09/27/10 PSD Permit)

120. **Testing** – *Dioxin/Furan*: Following the date that the initial performance test for dioxins/furans is completed or is required to be completed under 9 VAC 5-40-8100, Covanta Alexandria/Arlington, Inc. shall conduct performance tests for dioxin/furan emissions in accordance with permit Condition 119, according to one of the schedules in sections a. and b. of this permit condition.

    a. For affected facilities, performance tests shall be conducted on an annual basis (no more than twelve calendar months following the previous performance test).

    b. Where all performance tests over a two year period indicate that dioxin/furan emissions are less than or equal to fifteen nanograms per dry standard cubic meter (total mass) for all affected facilities located within a municipal waste combustor plant, the owner of the municipal waste combustor plant may elect to conduct annual performance tests for one affected facility (i.e., unit) per year at the municipal waste combustor plant. At a minimum, a performance test for dioxin/furan emissions shall be conducted annually (no more than twelve months following the previous performance test) for one affected facility at the municipal waste combustor plant. Each year a different affected facility at the municipal waste combustor plant shall be tested, and the affected facilities at the plant shall be tested in sequence (e.g., unit 1, unit 2, unit 3, as applicable). If each annual performance test continues to indicate a dioxin/furan emission level less than or equal to fifteen nanograms per dry standard cubic meter (total mass), the owner may continue conducting a performance test on only one affected facility per year. If any annual performance test indicates a dioxin/furan emission level greater than fifteen nanograms per dry standard cubic meter (total mass), performance tests thereafter shall

be conducted annually on all affected facilities at the plant until and unless all annual performance tests for all affected facilities at the plant over a two year period indicate a dioxin/furan emission level less than or equal to fifteen nanograms per dry standard cubic meter (total mass).

(9 VAC 5-80-110, 9 VAC 5-40-8140.F.5, and Condition 87 of 09/27/10 PSD Permit)

121. **Testing** – *Dioxin/Furan*: If Covanta Alexandria/Arlington, Inc. elects to follow the performance testing schedule specified in permit Conditions 120.a or 120.b above, Covanta Alexandria/Arlington, Inc. shall follow the procedures for reporting the selection of this schedule as specified in 9 VAC 5-40-8160.D.4.
(9 VAC 5-80-110, 9 VAC 5-40-8140.F.6, and Condition 88 of 09/27/10 PSD Permit)

122. **Testing** – *Dioxin/Furan*: Covanta Alexandria/Arlington, Inc. may request that compliance with the dioxin/furan emission limit be determined using carbon dioxide measurements corrected to an equivalent of seven percent oxygen. The relationship between oxygen and carbon dioxide levels for Covanta Alexandria/Arlington, Inc. shall be established as specified in 9 VAC 5-40-8150.B.6.
(9 VAC 5-80-110, 9 VAC 5-40-8140.F.8, and Condition 90 of 09/27/10 PSD Permit)

123. **Testing** – *Dioxin/Furan*: All performance tests shall consist of a minimum of three test runs. The average of the dioxin/furan emission concentrations from the three test runs is used to determine compliance.
(9 VAC 5-80-110, 9 VAC 5-40-8140.F.9, 9 VAC 5-40-30, 40 CFR 60.8 and Condition 91 of 09/27/10 PSD Permit)

124. **Testing** – *Nitrogen Oxides*: The procedures and test methods specified in Conditions 125 through 135 shall be used to determine compliance with the nitrogen oxides emission limit for affected facilities in Condition 12.d.
(9 VAC 5-80-110, 9 VAC 5-40-8140.G, and Condition 92 of 09/27/10 PSD Permit)

125. **Testing** – *Nitrogen Oxides*: Reference Method 19, section 4.1, shall be used for determining the daily arithmetic average nitrogen oxides emission concentration.
(9 VAC 5-80-110, 9 VAC 5-40-8140.G.1, and Condition 93 of 09/27/10 PSD Permit)

126. **Testing** – *Nitrogen Oxides*: Covanta Alexandria/Arlington, Inc. may request that compliance with the nitrogen oxides emission limit be determined using carbon dioxide measurements corrected to an equivalent of seven percent oxygen. The relationship between oxygen and carbon dioxide levels for Covanta Alexandria/Arlington, Inc. shall be established as specified in 9 VAC 5-40-8150.B.6.
(9 VAC 5-80-110, 9 VAC 5-40-818140G.2, and Condition 94 of 09/27/10 PSD Permit)

127. **Testing** – *Nitrogen Oxides*: Covanta Alexandria/Arlington, Inc. is subject to the nitrogen oxides emission limit under 9 VAC 5-40-8050 and shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring nitrogen oxides discharged to the atmosphere, and record the output of the system.
(9 VAC 5-80-110, 9 VAC 5-40-8140.G.4, and Condition 96 of 09/27/10 PSD Permit)

128. **Testing** – *Nitrogen Oxides*: Following the date that the initial performance test for nitrogen oxides is completed or is required to be completed under 9 VAC 5-40-8100, compliance with the emission limit for nitrogen oxides required under 9 VAC 5-40-8050 shall be determined based on the twenty-four hour daily arithmetic average of the hourly emission concentrations using continuous emission monitoring system outlet data.
(9 VAC 5-80-110, 9 VAC 5-40-8140.G.5, and Condition 97 of 09/27/10 PSD Permit)

129. **Testing** – *Nitrogen Oxides*: At a minimum, valid continuous emission monitoring system hourly averages shall be obtained as specified in sections a. and b. of this condition for seventy-five percent of the operating hours per day for ninety percent of the operating days per calendar quarter that Covanta Alexandria/Arlington, Inc. is combusting municipal solid waste.

    a. At least two data points per hour shall be used to calculate each one hour arithmetic average.

    b. Each nitrogen oxides one hour arithmetic average shall be corrected to seven percent oxygen on an hourly basis using the one hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.

    (9 VAC 5-80-110, 9 VAC 5-40-8140.G.6, and Condition 98 of 09/27/10 PSD Permit)

130. **Testing** – *Nitrogen Oxides*: The one hour arithmetic averages required by permit Condition 128 shall be expressed in parts per million by volume (dry basis) and used to calculate the twenty-four hour daily arithmetic average concentrations. The one hour arithmetic averages shall be calculated using the data points required in 40 CFR 60.13(e)(2).
(9 VAC 5-80-110, 9 VAC 5-40-8140.G.7, and Condition 99 of 09/27/10 PSD Permit)

131. **Testing** – *Nitrogen Oxides*: All valid continuous emission monitoring system data must be used in calculating emission averages even if the minimum continuous emission monitoring system data requirements of permit Condition 129 are not met.
(9 VAC 5-80-110, 9 VAC 5-40-8140.G.8, and Condition 100 of 09/27/10 PSD Permit)

132. **Testing** – *Nitrogen Oxides*: The procedures in 40 CFR 60.13 and 9 VAC 5-40-41.B.2 shall be followed for installation, evaluation, and operation of the continuous emission monitoring system. The initial performance evaluation shall be completed as specified in 9 VAC 5-40-8100.
(9 VAC 5-80-110, 9 VAC 5-40-8140.G.9, and Condition 101 of 09/27/10 PSD Permit)

133. **Testing** – *Nitrogen Oxides*: Covanta Alexandria/Arlington, Inc. shall operate the continuous emission monitoring system according to Performance Specification 2 in appendix B of 40 CFR 60 and shall follow the procedures and methods as follows:

    a. During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 2 of appendix B of 40 CFR 60, nitrogen oxides and oxygen (or carbon dioxide) data shall be collected concurrently (or within a thirty

to sixty minute period) by both the continuous emission monitors and the test methods specified in sections a.(i) and a.(ii) of this permit condition.

i. For nitrogen oxides, Reference Method 7, 7A, 7C, 7D, or 7E shall be used.
ii. For oxygen (or carbon dioxide), Reference Method 3, 3A, or 3B, as applicable, shall be used.

b. The span value of the continuous emission monitoring system shall be 125 percent of the maximum estimated hourly potential nitrogen oxide emissions of the municipal waste combustor unit.

(9 VAC 5-80-110, 9 VAC 5-40-8140.G.10, and Condition 102 of 09/27/10 PSD Permit)

134. **Testing** – *Nitrogen Oxides*: Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 in appendix F of 40 CFR 60.
(9 VAC 5-80-110, 9 VAC 5-40-8140.G.11, and Condition 103 of 09/27/10 PSD Permit)

135. **Testing** – *Nitrogen Oxides*: When nitrogen oxides continuous emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by the Board or Reference Method 19 to provide, as necessary, valid emissions data for a minimum of seventy-five percent of the hours per day for ninety percent of the days per calendar quarter the unit is operated and combusting municipal solid waste.
(9 VAC 5-80-110, 9 VAC 5-40-8140.G.12, and Condition 104 of 09/27/10 PSD Permit)

136. **Testing** – *Fugitive Ash*: Reference Method 22 shall be used for determining compliance with the fugitive ash emission limit in Condition 16.a. The minimum observation time shall be a series of three one hour observations. The observation period shall include times when the facility is transferring ash from the municipal waste combustor unit to the area where ash is stored or loaded into containers or trucks.
(9 VAC 5-80-110, 9 VAC 5-40-8140.H.1, and Condition 106 of 09/27/10 PSD Permit)

137. **Testing** – *Fugitive Ash*: The average duration of visible emissions per hour shall be calculated from the three one-hour observations. The average shall be used to determine compliance with Condition 16.a.
(9 VAC 5-80-110, 9 VAC 5-40-8140.H.2, and Condition 107 of 09/27/10 PSD Permit)

138. **Testing** – *Fugitive Ash*: Following the date that the initial performance test for fugitive ash emissions is completed or is required to be completed under 9 VAC 5-40-8100 for an affected facility, the owner shall conduct a performance test for fugitive ash emissions on an annual basis (no more than twelve calendar months following the previous performance test).
(9 VAC 5-80-110, 9 VAC 5-40-8140.H.4, and Condition 109 of 09/27/10 PSD Permit)

139. **Testing** – *Carbon Mass*: Since activated carbon injection is used at Covanta Alexandria/Arlington, Inc. to comply with the mercury emission limit in Condition 12.h or the dioxin/furan emission limits in Condition 12.i, or the dioxin/furan emission level specified in 9 VAC 5-40-8140F.5.b, Covanta Alexandria/Arlington, Inc. shall follow the procedures specified in Conditions 140 through 142.
(9 VAC 5-80-110, 9 VAC 5-40-8140.J, and Condition 110 of 09/27/10 PSD Permit)

140. **Testing** – *Carbon Mass*: During the performance tests for dioxins/furans and mercury, as applicable, the owner shall estimate an average carbon mass feed rate based on carbon injection system operating parameters such as the gravimetric feed rate, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system being employed, as specified below:

    An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance test for mercury emissions and each subsequent performance test for mercury emissions. The average carbon mass feed rate shall be based on the sampling requirements and duration as specified by USEPA Method 29 or approved equivalent.
    (9 VAC 5-80-110, 9 VAC 5-40-8140.J.1, and Condition 111 of 09/27/10 PSD Permit)

141. **Testing** – *Carbon Mass*: During operation of Covanta Alexandria/Arlington, Inc., the carbon injection system operating parameter(s) that are the primary indicator(s) of the carbon mass feed rate (e.g., gravimetric feeder setting) must equal or exceed the level(s) documented during the performance tests specified under permit Condition 140.
(9 VAC 5-80-110, 9 VAC 5-40-8140.J.2, and Condition 112 of 09/27/10 PSD Permit)

142. **Testing** – *Carbon Mass*: Covanta Alexandria/Arlington, Inc. shall estimate the total carbon usage of the plant (kilograms or pounds) for each calendar quarter by two independent methods, according to the procedures in sections a. and b. of this permit condition.

    a. The weight of carbon delivered to the plant.

    b. Estimate the average carbon mass feed rate in kilograms per hour or pounds per hour for each hour of operation for each affected facility based on the parameters specified under permit Condition 140, and sum the results for all affected facilities at the plant for the total number of hours of operation during the calendar quarter.

    (9 VAC 5-80-110, 9 VAC 5-40-8140.J.3, and Condition 113 of 09/27/10 PSD Permit)

143. **Testing** – *Sulfuric Acid Mist*: The procedures and test methods specified in subsections a through d of this condition shall be used when conducting performance tests for sulfuric acid mist (H_2SO_4) to demonstrate compliance with the emission limits contained in this permit.

    a. The permittee shall conduct performance tests for sulfuric acid mist (H_2SO_4) from the MWC stacks using EPA Methods 1-5 and EPA Method 8, or other methods as approved by the DEQ.

b. Emissions testing of sulfuric acid mist (H_2SO_4) shall consist of a minimum of three one-hour test runs (or other length of time as required by the applicable test method). The average of the three runs shall be reported as the short-term emission rate for the facility.

c. Testing shall be conducted with the MWC operating at eighty percent or more of its maximum rated capacity.

d. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30.

(9 VAC 5-80-110, 9 VAC 5-80-1200, 9 VAC 5-50-30G, and Condition 12 of 03/16/10 minor NSR permit)

144. **Reporting** – Annual emissions and a certification of compliance with the facility annual permit mass emission limitations utilizing a combination of steam production data, CEMS data, and results of stack testing shall be included in Covanta Alexandria/Arlington, Inc.'s annual report.
(9 VAC 5-80-110, 9 VAC 5-50-50 and Condition 157 of 09/27/10 PSD Permit)

145. **Reporting** – Covanta Alexandria/Arlington, Inc. shall demonstrate compliance in its annual report with all the lb/MMBtu and lb/hr mass emission limitations, or for HCl, SO_2 and Hg the percent removal requirements utilizing a combination of steam production data, CEMS data, and results of stack testing.
(9 VAC 5-80-110, 9 VAC 5-50-50 and Condition 158 of 09/27/10 PSD Permit)

146. **Reporting** – Covanta Alexandria/Arlington, Inc. shall document in its annual report that actual carbon monoxide (CO) emissions have not increased more than ninety-nine tons per year from an average of 1998 & 1999 facility wide actual CO emissions of 46.5 tons/yr, calculated on a cumulative basis.
(9 VAC 5-80-110, 9 VAC 5-50-50 and Condition 159 of 09/27/10 PSD Permit)

147. **Reporting** – Covanta Alexandria/Arlington, Inc. shall submit a semiannual report including the information specified in permit Conditions 148 through 151, as applicable, according to the schedule specified in Condition 158.
(9 VAC 5-80-110, 9 VAC 5-40-8160.D, and Condition 152 of 09/27/10 PSD Permit)

148. **Reporting** – A summary of data collected for all pollutants and parameters regulated under this article, which includes the information specified in sections a. through e. of this permit condition.

a. A list of the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, sulfuric acid mist, and fugitive ash emission levels achieved during the performance tests recorded under permit Condition 54.

b. A list of the highest emission level recorded for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, and particulate matter control device inlet temperature based on the data recorded under permit Condition 48.b.

c. List the highest opacity level measured, based on the data recorded under permit Condition 48.a.

d. The total number of days that the minimum number of hours of data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature data were not obtained based on the data recorded under permit Condition 51.

e. The total number of hours that data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature were excluded from the calculation of average emission concentrations or parameters based on the data recorded under permit Condition 52.

(9 VAC 5-80-110, 9 VAC 5-40-8160.D.1, and Condition 153 of 09/27/10 PSD Permit)

149. **Reporting** – The summary of data reported under permit Condition 148 shall also provide the types of data specified in permit Condition 148 for the calendar year proceeding the year being reported, in order to provide the Board with a summary of the performance of Covanta Alexandria/Arlington, Inc. over a two year period.
(9 VAC 5-80-110, 9 VAC 5-40-8160.D.2, and Condition 154 of 09/27/10 PSD Permit)

150. **Reporting** – The summary of data including the information specified in permit Conditions 148 and 149 shall highlight any emission or parameter levels that did not achieve the emission or parameter limits specified under this subpart.
(9 VAC 5-80-110, 9 VAC 5-40-816.0D.3, and Condition 155 of 09/27/10 PSD Permit)

151. **Reporting** – A notification of intent to begin the reduced dioxin/furan performance testing schedule specified in 9 VAC 5-40-8140F.5.b during the following calendar year.
(9 VAC 5-80-110, 9 VAC 5-40-8160D.4, and Condition 156 of 09/27/10 PSD Permit)

152. **Reporting** – Covanta Alexandria/Arlington, Inc. shall submit a semiannual report that includes the information specified in permit Conditions 153 through 157 for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit specified under this article, according to the schedule specified under permit Condition 158.
(9 VAC 5-80-110, 9 VAC 5-40-8160.E, and Condition 160 of 09/27/10 PSD Permit)

153. **Reporting** – The semiannual report shall include information recorded under permit Condition 49 for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, particulate matter control device inlet temperature, and opacity.
(9 VAC 5-80-110, 9 VAC 5-40-8160.E.1, and Condition 161 of 09/27/10 PSD Permit)

154. **Reporting** – For each date recorded as required by permit Condition 49 and reported as required by permit Condition 153, the semiannual report shall include the sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, particulate matter control device inlet temperature, or opacity data, as applicable, recorded under permit Condition 49, as applicable.
(9 VAC 5-80-110, 9 VAC 5-40-8160.E.2, and Condition 162 of 09/27/10 PSD Permit)

155. **Reporting** – If the test reports recorded under permit Condition 54 document any particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels that were above the applicable pollutant limits, the semiannual report shall include a copy of the test report documenting the emission levels and the corrective actions taken.
(9 VAC 5-80-110, 9 VAC 5-40-8160.E.3, and Condition 163 of 09/27/10 PSD Permit)

156. **Reporting** – The semiannual report shall include the information recorded under permit Condition 58 for the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate.
(9 VAC 5-80-110, 9 VAC 5-40-8160.E.4, and Condition 164 of 09/27/10 PSD Permit)

157. **Reporting** – For each operating date reported as required by permit Condition 156 the semiannual report shall include the carbon feed rate data recorded under permit Condition 50.b.
(9 VAC 5-80-110, 9 VAC 5-40-8160.E.5, and Condition 165 of 09/27/10 PSD Permit)

158. **Reporting** – Semiannual reports required by permit Conditions 147 through 151 and Conditions 152 through 157 shall be submitted according to the schedule specified in sections a. and b. of this permit condition.

    a. If the data reported in accordance with permit Conditions 148 through 151 or Conditions 153 through 157 were collected during the first calendar half, then the report shall be submitted by August 1 following the first calendar half.

    b. If the data reported in accordance with permit Conditions 148 through 151 or Conditions 153 through 157 were collected during the second calendar half, then the report shall be submitted by February 1 following the second calendar half.

    (9 VAC 5-80-110, 9 VAC 5-40-8160.E.6, and Condition 166 of 09/27/10 PSD Permit)

159. **Reporting** – All reports specified under permit Conditions 147 through 157 shall be submitted as one paper copy, and one copy on electronic media postmarked on or before the submittal dates specified under these permit conditions, and maintained onsite as a paper copy for a period of five years.
(9 VAC 5-80-110, 9 VAC 5-40-8160.G, and Condition 167 of 09/27/10 PSD Permit)

160. **Reporting** – If Covanta Alexandria/Arlington, Inc. would prefer to select a different annual or semiannual date for submitting the periodic reports required by permit Conditions 147 through 158, then the dates may be changed by mutual agreement between the owner and the Board.
(9 VAC 5-80-110, 9 VAC 5-40-8160.I, and Condition 169 of 09/27/10 PSD Permit)

161. **Reporting** – The permittee shall provide written notification to the Regional Air Compliance Manager of the DEQ's NRO of the date of any emissions test that will be used to determine compliance with a standard. Notification shall be postmarked not less than thirty days prior to such date.
(9 VAC 5-80-110, 40 CFR 60.7, 40 CFR 60.8 and 9 VAC 5-40-50.A.2)

Storage Silos (004-01, 005-01, and 007-01)

162. **Limitations** – Particulate emissions from the carbon silo shall be controlled by a fabric filter. The fabric filter shall be provided with adequate access for inspection.
(9 VAC 5-80-110, 9 VAC 5-50-90, 9 VAC 5-80-1180, 9 VAC 5-50-260, Condition 3 of 03/16/10 minor NSR Permit, and Condition 4A of 09/27/10 PSD Permit)

163. **Limitations** - Particulate emissions from the lime silo shall be controlled by a fabric filter. The fabric filter shall be provided with adequate access for inspection.
(9 VAC 5-80-110, 9 VAC 5-50-90, 9 VAC 5-80-1180, Condition 3 of 03/16/10 minor NSR Permit and Condition 4A of PSD 09/27/10 Permit)

164. **Limitations** - Particulate emissions from the Dolomitic lime silo shall be controlled by a fabric filter. The fabric filter shall be provided with adequate access for inspection.
(9 VAC 5-80-110, 9 VAC 5-50-90, 9 VAC 5-80-1180, and Condition 3 of 03/16/10 minor NSR Permit)

165. **Limitations** – Visible emissions from the carbon and lime silos shall not exceed twenty percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed thirty percent opacity.
(9 VAC 5-50-80, 9 VAC 5-80-110 and Condition 12A of 09/27/10 PSD Permit)

166. **Limitations** – Particulate matter emissions from the carbon silo shall not exceed 22.22 lbs/hr.
(9 VAC 5-80-110, 9 VAC 5-40-270 and Condition 10A of 09/27/10 PSD Permit)

167. **Limitations** – Particulate matter emissions from the lime silos shall not exceed 22.22 lbs/hr.
(9 VAC 5-80-110, 9 VAC 5-40-270 and Condition 10A of 09/27/10 PSD Permit)

168. **Testing** – The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the DEQ, test ports shall be provided at the appropriate locations.
(9 VAC 5-50-30 and 9 VAC 5-80-110)

169. **Testing** – If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9 VAC 5-80-110)

Storage Tank (006-01)

170. **Recordkeeping** – The permittee shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. The content and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO. These records shall be available on-site for inspection by the DEQ for the life of the source.
(9 VAC 5-80-110, 40 CFR 60.110b(c) 40 CFR 60.116b(a)-(b), and Condition 151C of 02/04/02 PSD Permit)

Emergency Generator (008-01)

171. **Limitations** – *Requirements by Reference:* Except where this permit is more restrictive than the applicable requirement, the emergency generator (008-01) shall be operated in compliance with the requirements of 40 CFR 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines and 40 CFR 63, Subpart A – General Provisions.
(9 VAC 5-80-110 A, 40 CFR §63.6665, Table 8 of 40 CFR 63, Subpart ZZZZ, and 40 CFR 63, Subpart A)

172. **Limitations** – *Work Practice Standards:* For the emergency generator (008-01), the permittee shall:

    a. Change oil and filter every 500 hours of operation or annually, whichever comes first;

    b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and

    c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

    Note 1: Sources have the option to utilize an oil analysis program as described in 40 CFR §63.6625 (i) or (j) in order to extend the specified oil change requirement in Condition 172.a (Table 2c of 40 CFR 63, Subpart ZZZZ).

    Note 2: If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in this Permit Condition (Table 2c of 40 CFR 63, Subpart ZZZZ), or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

    (9 VAC 5-80-110 A, 40 CFR §63.6603(a), 40 CFR §63.6640 and Table 2c of 40 CFR 63 Subpart ZZZZ)

173. **Limitations** – *Operational Use:* In order for the emergency generator (008-01) to be considered an emergency stationary reciprocating internal combustion engine (RICE) under 40 CFR 63, Subpart ZZZZ, the operation of the emergency generator (008-01) is limited to emergency situations as specified in 40 CFR §63.6640(f)(1); maintenance checks and readiness testing for a limited number of hours per year as specified in 40 CFR §63.6640(f)(2)(i); and certain non-emergency situations for a limited number of hours per year as specified in 40 CFR §63.6640(f)(3). If the unit is not operated in accordance with

40 CFR §63.6640(f)(1), §63.6640(f)(2)(i) or §63.6640(f)(3), the emergency generator (008-01) will not be considered an emergency engine under 40 CFR Part 63, Subpart ZZZZ and must meet the emissions standards and other applicable requirements for a non-emergency engine.
(9 VAC 5-80-110 A and 40 CFR §63.6640 (f))

174. **Limitations** – *Startup periods*: During periods of startup, the permittee shall minimize the time spent at idle for the emergency generator (008-01) and minimize the generator's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emissions limitations apply.
(9 VAC 5-80-110 A and 40 CFR 63.6625 (h))

175. **Monitoring** – *Continuous Compliance:* The permittee shall:

a. Operate and maintain the emergency generator (008-01) according to the manufacturer's emission-related written operation and maintenance instructions; or

b. Develop and follow its own maintenance plan which must provide to the extent practicable for the maintenance and operation of the emergency generator (008-01) in a manner consistent with good air pollution control practice for minimizing emissions.

(9 VAC 5-80-110 A, 40 CFR §63.6625(e), 40 CFR 63.6640(a) and Table 6 of 40 CFR 63 Subpart ZZZZ)

176. **Monitoring** – *Hour Meter:* The permittee shall install a non-resettable hour meter on the emergency generator (008-01) if one is not already installed.
(9 VAC 5-80-110 A and 40 CFR §63.6625(f))

177. **Recordkeeping** – The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ. These records shall include but are not limited to:

a. Records of the maintenance conducted on the emergency generator (008-01) in order to demonstrate that the engine is operated and maintained according to the maintenance plan required by Condition 175.

b. Records of the hours of operation of the emergency generator (008-01) that are recorded on a non-resettable hour meter. The permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency, and how many hours are spent for non-emergency operation, including what classified the operation as non-emergency.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-110 A and 40 CFR 63.6655)

Facility-Wide Conditions

178. **Reporting** – *Notification for Control Equipment Maintenance*: The permittee shall furnish notification to the Regional Air Compliance Manager of the DEQ's NRO of the intention to shut down or bypass, or both, air pollution control equipment for necessary scheduled maintenance, which results in excess emissions for more than one hour, at least twenty-four hours prior to the shutdown. The notification shall include, but is not limited to, the following information:

    a. Identification of the air pollution control equipment to be taken out of service, as well as its location, and registration number.

    b. The expected length of time that the air pollution control equipment will be out of service.

    c. The nature and quantity of emissions of air pollutants likely to occur during the shutdown period.

    d. Measures that will be taken to minimize the length of the shutdown or to negate the effect of the outage

    (9 VAC 5-80-110, 9 VAC 5-20-180 B, Condition 21 of 03/16/10 minor NSR Permit, and Condition 180 of 09/27/10 PSD Permit)

Insignificant Emission Units

179. **Insignificant Emission Units** –. The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
IU-1	MSW Building/Pit	9 VAC 5-80-720B	PM, PM_{10} and VOC	N/A
IU-2	Ash Building	9 VAC 5-80-720B	PM, PM_{10}, SO_2, HCl, Cd, Pb and Hg	N/A
IU-3	Water Heater	9 VAC 5-80-720C.2	N/A	199,999 Btu/hr
IU-5	Lime Slaker Area	9 VAC 5-80-720B	PM, PM_{10}, VOC	N/A
IU-6	Cooling Tower	9 VAC 5-80-720A.71	N/A	N/A
IU-7	Aqueous Ammonia Storage Tank	9 VAC 5-80-720A.42	N/A	N/A
IU-8	Diesel AST	9 VAC 5-80-720B	VOC	N/A

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110. (9 VAC 5-80-720 and 9 VAC 5-80-110 C, E, and F)

Permit Shield & Inapplicable Requirements

180. **Permit Shield and Inapplicable Requirements** - Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Non-Applicability
40 CFR 60 Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units	According to 40 CFR 60.40b(k), a facility subject to an EPA-approved section 111(d)/129 plan implementing 40 CFR 60 Subpart Cb is not covered by 40 CFR 60 Subpart Db. Covanta is subject to 9 VAC 5 Chapter 40 Article 54, which is Virginia's EPA-approved plan implementing 40 CFR 60 Subpart Cb.
40 CFR 63 Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters	40 CFR §63.7491(l) excludes boilers specifically listed as an affected source in any standard(s) established under §129 of the Clean Air Act. Covanta's MWC units are subject to 9 VAC 5-40-7950 et seq. which implements 40 CFR Part 60, Subpart Cb (Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors that are Constructed on or before September 20, 1994), which was developed by EPA under sections 111 and 129 of the Clean Air Act.
40 CFR 97 Subparts AAAAA-CCCCC	Cross-State Air Pollution Rule	The facility has two steam turbines, each rated at 14.5 MW which is below the 25 MWe nameplate capacity applicability threshold. Also, Covanta's operation meets the exemption for solid waste incineration units for which total heat input is <20%.

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act,

including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
(9 VAC 5-80-140)

General Conditions

181. **Federal Enforceability** – All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9 VAC 5-80-110 N)

182. **Permit Expiration** – This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the DEQ consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

183. **Permit Expiration** – The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

184. **Permit Expiration** – If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

185. **Permit Expiration** – No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

186. **Permit Expiration** – If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

187. **Permit Expiration** – The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

188. **Recordkeeping and Reporting** – All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

    a. The date, place as defined in the permit, and time of sampling or measurements.

    b. The date(s) analyses were performed.

    c. The company or entity that performed the analyses.

    d. The analytical techniques or methods used.

    e. The results of such analyses.

    f. The operating conditions existing at the time of sampling or measurement.

    (9 VAC 5-80-110 F)

189. **Recordkeeping and Reporting** – Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
(9 VAC 5-80-110 F)

190. **Recordkeeping and Reporting** – The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

    a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.

    b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:

        i. Exceedance of emissions limitations or operational restrictions;
        ii. Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,
        iii. Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

    c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

(9 VAC 5-80-110 F)

191. **Annual Compliance Certification** – Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

    a. The time period included in the certification. The time period to be addressed is January 1 to December 31.

    b. The identification of each term or condition of the permit that is the basis of the certification.

    c. The compliance status.

    d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.

    e. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.

    f. Such other facts as the permit may require to determine the compliance status of the source.

    One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

    R3_APD_Permits@epa.gov

    (9 VAC 5-80-110 K.5)

192. **Permit Deviation Reporting** – The permittee shall notify the DEQ, within four daytime business hours after discovery, of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition 190 of this permit.
(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

193. **Failure/Malfunction Reporting** – In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the DEQ by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the DEQ.
(9 VAC 5-20-180 C)

194. **Severability** – The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110 G.1)

195. **Duty to Comply** – The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9 VAC 5-80-110 G.2)

196. **Need to Halt or Reduce Activity not a Defense** – It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110 G.3)

197. **Permit Modification** – A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9 VAC 5-80-190 and 9 VAC 5-80-260)

198. **Property Rights** – The permit does not convey any property rights of any sort, or any exclusive privilege.
(9 VAC 5-80-110 G.5)

199. **Duty to Submit Information** – The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the

Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9 VAC 5-80-110 G.6)

200. **Duty to Submit Information** – Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
(9 VAC 5-80-110 K.1)

201. **Duty to Pay Permit Fees** – The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the DEQ by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.
(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

202. **Fugitive Dust Emission Standards** – During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;

d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-40-90 and 9 VAC 5-50-90)

203. **Startup, Shutdown, and Malfunction** – At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9 VAC 5-50-20 E)

204. **Alternative Operating Scenarios** – Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.
(9 VAC 5-80-110 J)

205. **Inspection and Entry Requirements** – The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

    a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

    b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

    c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

    d. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

    (9 VAC 5-80-110 K.2)

206. **Reopening For Cause** – The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

a. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

207. **Permit Availability** – Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.
(9 VAC 5-80-150 E)

208. **Transfer of Permits** – No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-160)

209. **Transfer of Permits** – In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

210. **Transfer of Permits** – In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

211. **Permit Revocation or Termination for Cause** – A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-190 C and 9 VAC 5-80-260)

212. **Duty to Supplement or Correct Application** – Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-80 E)

213. **Stratospheric Ozone Protection** – If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F and H.
(40 CFR Part 82, Subparts A-F and H)

214. **Asbestos Requirements** – The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).
(9 VAC 5-60-70 and 9 VAC 5-80-110 A.1)

215. **Accidental Release Prevention** – If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)

216. **Changes to Permits for Emissions Trading** – No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-110 I)

217. **Emissions Trading** – Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

    a. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.

    b. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

    c. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

    (9 VAC 5-80-110 I)

218. **Certification of Documents** –

a. The following documents submitted to the Board shall be signed by a responsible official: (i) any emission statement, application, form, report, or compliance certification; (ii) any document required to be signed by any provision of the regulations of the Board; or (iii) any other document containing emissions data or compliance information the owner wishes the Board to consider in the administration of its air quality programs. A responsible official is defined as follows:

i. For a business entity, such as a corporation, association or cooperative, a responsible official is either:

(a) The president, secretary, treasurer, or a vice president of the business entity in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the business entity; or

(b) A duly authorized representative of such business entity if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either (i) the facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars) or (ii) the authority to sign documents has been assigned or delegated to such representative in accordance with procedures of the business entity.

ii. For a partnership or sole proprietorship, a responsible official is a general partner or the proprietor, respectively.

iii. For a municipality, state, federal, or other public agency, a responsible official is either a principal executive officer or ranking elected official. A principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of the principal geographic unit of the agency.

b. Any person signing a document under subsection A above shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering and evaluating the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

c. Subsection B shall be interpreted to mean that the signer must have some form of direction or supervision over the persons gathering the data and preparing the document (the preparers), although the signer need not personally nor directly supervise these activities. The signer need not be in the same line of authority as the preparers, or do the persons gathering the form need to be employees (e.g., outside contractors can be used). It is sufficient that the signer has authority to assure that the necessary actions are taken to prepare a complete and accurate document.

(9 VAC 5-20-230)